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Profitability Assessment of a Given Company

Hodnocení rentability vybrané společnosti

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Bibliography
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List of Annexes
Annexes

References:

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The declaration

“Herewith I declare that I elaborated the entire thesis, including all annexes, independently”

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Contents

1. Introduction

Since the reform and opening up in China at the end of twentieth century, people's concept and the economic situation have changed dramatically. A large number of private enterprises appeared at that time. China Huiyuan Juice Group Limited is one of them. China's private economic development history is process that families develop their own businesses from small workshops to legal entities and even listed companies, multinational corporations. Huiyuan Juice was once the leader of the soft drink industry; it is also the childhood memory of lots of contemporary Chinese young people. The market is changing, the glory days of the past is no longer. It is worth to study the development of Huiyuan Juice and find out the cause of its recession. A financial analysis is necessary for the company to find out current problems and predict the future.

The aim of the thesis is to analyze the overall financial position of Huiyuan Juice Group Limited. It includes profitability, solvency, liquidity and operating activity analysis, among which the profitability analysis is the focus. Accurate, comprehensive and objective analysis of the profitability is beneficial to reflecting and evaluating the company’s operating performance in a certain period, finding out the problems in the management and forecasting the future. The data bases of the analysis are balance sheets, income statements and cash flow statements of Huiyuan Juice from 2011 to 2015.

The contents of the thesis are divided into five parts. The first chapter is introduction. There is an overall description of the thesis in, which includes the aim of the study, the basement of the analysis, the structure and main contents of the thesis.

In the second chapter, it is a description of the financial analysis methodology. Research methods that are introduced in this chapter are common-size analysis, financial ratio analysis, pyramidal decomposition and influence quantification. In the part of common-size analysis, horizontal and vertical common-size analysis methods are described. In the part of financial ratio analysis, we choose four kinds of financial ratios to explain their meanings and calculation ways. They are profitability ratio, solvency ratio, liquidity ratio and management ratio. Lastly, we explain how to make a pyramidal decomposition of return on equity and how to do the influence quantification.

Chapter 3 and chapter 4 are the key parts of this thesis. In these two chapters, we take the financial analysis methodologies that are introduced in chapter 2 into practice. Chapter 3 is divided into three parts. In the first part, it gives an overall introduction of Huiyuan Juice Group Limited. It includes the company's basic information, history, policy and the industry status. In the second part, we do the common-size analysis according to the balance sheets, income statements and cash flow statements of Huiyuan Juice Group from 2011 to 2015. In the third part, it is the financial ratio analysis, which includes solvency ratio, liquidity ratio and management ratio. Chapter 4 is focused on the profitability assessment. The results of profitability ratio analysis, pyramidal decomposition and influence quantification of ROE is presented. From the analysis we can know how the changes of each component ratio influence the change of basic ratio.

Chapter 5 is the conclusion part. It draws a conclusion of the company's financial position based on the outcomes of previous chapters. By combining our results with the realistic external environment and the company's operating policy, we distinguish the weakness and strength of the company as well as find out the reason of its poor or good performance, and lastly make a prediction to its future.

1. Description of the Financial Analysis Methodology

Financial analysis methodology is described in this chapter. It is classified into four parts. Firstly, it gives an overall explanation of financial analysis, which includes its definition, function, classification and so on. Secondly, common-size analysis is introduced, which includes the horizontal analysis and vertical analysis. Thirdly, it is the description of financial ratio analysis, which includes profitability ratio, solvency ratio, liquidity ratio and activity ratio. The last part is pyramidal decomposition and influence analysis. The content of this chapter is based on Dana Dluhošová et al. (2014) and Dagmar Richtarová et al. (2013).

2.1 Financial Analysis

Financial analysis is a kind of analytical method which is based on financial statements. It is used to analyze the company's past and present financial condition, from which we can get the changes of financial situation and predict developing direction of the future, so as to provide business decision-making suggestions to the operators and investment suggestions to its benefit counterparts. The objectives of financial analysis are the company's profitability, solvency, operating capacity and growth capacity. They are derived from the company's financial activities, investment activities, business activities and distribution activities.

The function of financial analysis can be classified into three classes. Firstly, it contributes to rational analysis of the past performance of the company. Correct evaluation of the financial situation of enterprises in the past is the basis of revealing the current situation and predicting the future. Financial analysis can make an accurate description on the financial condition and operating results in the past as well as identify the problem and analyze the causes. Secondly, it helps the assessment of managers' management level so that the company can do a reasonable personnel transfer. Thirdly, it contributes to comprehensively reflecting the status quo of the company from different view of point. Financial statement users contain the shareholders, creditors, managers, government and so on. Financial analysis can meet the different needs of different users by using different analytical tools. Lastly, it contributes to predicting the company's future development trend, which can make guidelines for the enterprise's financial budget and financial decision, as well as help the enterprise to prevent financial crisis.

There are a variety of subjects of financial analysis such as investors, creditors, managers and government agencies. They use financial statements for different purposes. For investors, their purpose is to expand their own wealth. So what they are most concerned about are the operating results, operating capacity, earning capacity, growth capacity, solvency and risk. According to the financial analysis, they may want to know the changing trend of company's profit, the company's strengths and weaknesses compared to other companies, and whether the company's earnings are susceptible to the external risks. Investors conduct analysis of corporate finance to help themselves achieve the expected high return. For creditors, they need to decide whether to provide credit to the company. And they want to know when they can receive the repayments. So, what they are most concerned about is whether the enterprise has the ability to pay off debts. They may want to know why the company needs to raise fund, the source of payment, whether the previous loan is repaid on time. The creditors should seriously analyze the financial situation of enterprises; formulate correct credit policy to reduce risks. For the company's administrative staff, their purpose of analyze the financial statement is to improve the statement. They are concerned about profitability and sustainable development capacity. They need to clear the financial position of their own companies and the competitors, know their own weakness in the competition, and develop marketing and competitive strategies. For the government, corporate tax revenue is an important source of national revenue. State taxation authorities and economic management department can master the economic situation and do corresponding control according to the financial analysis.

There are many financial analysis methods, which can be classified into quantitative method and qualitative method. The so-called quantitative method is the method used by means of mathematics, in which we calculate, compare and identify the changes of the financial indicators, as well as find the factors causing the changes. The so-called qualitative method is to do a comprehensive assessment to the results of quantitative analysis by considering a variety of factors that cannot be quantified, and do correction to make it close to the reality. The quantitative methods are based on financial statements and other accounting data. Financial statement-based analysis can be broadly divided into three categories; financial ratio analysis, comparative analysis, factor analysis. Financial ratio analysis uses the correlation between two indices to calculate the ratio. Comparative analysis is to compare the financial condition of different periods to revealing the change trend, or compare the proportion of component items to a basic item, or compare certain data with the industry average or the other companies. Factor analysis is to quantitatively identify the impact of the change of various factors to a certain indicator. In this thesis, common-size analysis, financial ratio analysis, pyramidal decomposition and influence analysis are specifically used.

2.2 Common-size Analysis

Common-size analysis shows relationship of items of different years' financial statements into one table, so as to analyze long term tendency of every item. The analysis is mainly made through preparing percentage statement. The types of common-size analysis can be divided into horizontal common-size analysis and vertical common-size analysis. Because of relative values, the common-size analysis makes it possible to compare two different size companies. Certainly, the two different size companies must be in the same industry, and the accounting method and the program of preparation of financial statements should be roughly the same. Otherwise, it can't show a practical significate outcome.

2.2.1 Horizontal Analysis

Horizontal common-size analysis is comparing the same item in different period so as to research the changes and development. So it is a kind of trend analysis. Here we choose two kinds of calculation ways to apply in horizontal analysis. One is the absolute change; the other is the development of items. By using the absolute change, we can find the difference of a single item in different years so as to find a certain trend. By using the development of items, we can find the moving trend of each item and compare the variation of different items. Also, we can aim at the relationship between different items so as to find some hidden problem. When using horizontal analysis, we should notice the comparability of related items and the impact of accidental event.

The calculation method of absolute change is:

$$\Delta V_t^{abs} = V_t - V_{t0}, \tag{2.1}$$

and the development of items is:

$$\Delta V_t^{dep} = \frac{V_t}{V_{t0}}, \tag{2.2}$$

where ΔV_t^{abs} is absolute change, ΔV_t^{dep} is development of items, V_t is the value of a certain item in the period t, V_{t0} is the value in the basic period.

2.2.2 Vertical Analysis

In a financial statement, comparing the data in the table to overall data can identify the position, importance and variability of the items in the totality. So the vertical common-size analysis is a kind of structure analysis. The analytical procedure of vertical common-size analysis can be divided into three steps. First, put a certain important item in a statement as 100 percent, and then express the others in a form of percentage of the item we choose as 100%. Second, identify the position of the item in the statement by using the calculation result. Third, compare the proportion to previous years or future years and observe the change trend. The calculation method of proportion is:

$$\textit{proportion of each item} = \frac{V_i}{\Sigma V_i}, \tag{2.3}$$

where V_i is the value of component item, $\sum V_i$ is the value of benchmark item.

2.3 Financial Ratio Analysis

The financial ratio analysis is to calculate the ratio of two numbers according to a relationship between the two items and evaluate the financial position according to the calculation results. In the ratio analysis, two ways of evaluation can be made. One is the time series analysis, which recognizes the continuity of development of times and takes the randomness of development into consideration. We analyze ratios of an enterprise for successive years. The other is comparing ratios with the industry average or the competitors to check the relative operating conditions.

Financial ratio analysis can transfer a large volume of data into something useful for specific decisions, which simplify the analysis procedure and reduce the uncertainty. Financial ratio analysis is the most common and easiest analytical technique. Ratio is a relative number. So this method can convert incomparable indicators under certain conditions into comparable ones.

From a mathematical point of view, the financial ratios can be broadly divided into three categories, correlation ratio, structural ratio and trend ratio. Correlation ratio reflects the relationship of different items in the same statement such as net profit margin, accounts receivable turnover and so on. Structural ratio is the ratio of the individual item values to the sum of all item values, which can intuitively reveal the relationship of parts and whole. Trend ratio is the ratio of comparison one same item in different periods, so as to reveal the variation trend and the speed of change. From the economic significance point of view, the financial ratios also can be divided into three categories. The first category is the ratio to reflect the corporate profitability. The second category is used to assess the company's debt paying ability, which includes solvency ratio used to measure the ability to fulfill long-term obligations and liquidity ratio used to measure the ability to fulfill short-term obligations. The third category is used to reflect the enterprise investment and asset utilization capacity. The above three indicators are closely linked, in general, a good investment and effective use of assets is the basis for corporate profits, corporate earnings is a protection for repayment of debt. In this thesis, we mainly focus on the calculation and analysis of profitability ratio, solvency ratio, liquidity ratio and activity ratio.

2.3.1 Profitability Ratio

Profitability ratio analysis is a tool to analysis the company's ability to generate profit. Business managers, investors, creditors are concerned about this kind of ratio. Profitability is the basis for the survival and development of enterprises. When calculating this ratio, the numerator is almost always the profit indexes which are the results under accrual basis. Usually, a higher profitability ratio means a better financial position of the corporate. The analysis of profitability can reflect and evaluate the operating results of a certain period of the company, from which we can discover problems in operation and management; we can analyze the causes of the problems, and then take measures to solve the problem. Also it is an effective way to measure the performance of related personnel. There are many indexes that can assess the profitability, and the most used four indexes are EBITDA margin, operating profit margin, EBT margin, net profit margin, return on assets and return on equity.

EBITDA margin is the percentage of earnings before interest, tax, depreciation and amortization to sales revenue.

The equation of EBITDA margin is:

$$EBITDA\,margin = \frac{EBITDA}{Rev}, \tag{2.4}$$

where $EBITDA$ is earnings before interests, taxes, depreciation and amortization, Rev is revenue.

EBITDA is the sum of operating income, depreciation and amortization. Depreciation is a accounting of fixed assets. In fact, once the purchase of fixed assets is completed, the cash has been paid. It does not affect the follow-up business. Amortization is the accounting of intangible assets. After a company acquires another firm, there will be a huge amount of intangible assets on the balance sheet. So we hope to remove this kind of expense so as to directly observe the operating income. Through this ratio, investors can focus on future capital expenditure estimates, rather than the sunk costs.

Operating profit margin refers to the ratio of the operating profit of an enterprise to its operating revenues. It measures the efficiency of business, the company's ability to obtain profit when taking its operating costs into consideration.

The equation of operating profit margin is:

$$\text{Operating profit margin} = \frac{EBIT}{Rev}, \tag{2.5}$$

where $EBIT$ is earnings before interests and taxes, Rev is revenue.

The indicator reflects the operating profit to per unit of sales revenue, represents the income level of sales revenue. From the composition of the formula, we can infer that the factors impact the operating profit margin are sales volume, selling price per unit of product, manufacturing cost per unit of product and companies' ability of controlling expenses. On the other hand, we can know from the indicator that how much money can be used for the formation of profit and the covering the additional cost. Operating profit margin is the basis for net profit margin. If there is not big enough operating profit margin, it will not be profitable.

EBT margin is the percentage of earnings before taxes to sales. EBT margin can reflect the impact of corporate capital structure and financing structure on corporate profitability.

The equation of EBT margin is:

$$EBT\ margin = \frac{EBT}{Rev}, \tag{2.6}$$

where EBT is earnings before and taxes, Rev is revenue.

Earnings before tax is the sum of company's net operating profit and net non-operating profit. It is the basis to pay corporate income tax. The company who has a high EBT margin has a strong capacity to control costs. The difference between EBT margin and operating profit margin is only the impact of interest. Therefore, by analyzing these two ratios comprehensively, we can clearly see the impact of capital structure on the profitability of enterprises.

Net profit margin is the percentage of net profit to sales. Net profit margin is the company's bottom line; net profit is the remaining part of the funds that had been subtracted all the costs expenses and corporate income tax.

The equation of net profit margin is:

$$Net\ profit\ margin = \frac{EAT}{Rev}, \tag{2.7}$$

where EAT is earnings after taxes, Rev is revenue.

This indicator reflects the amount of net profit per unit of sales revenue. Only concerned about the absolute amount of net profit increase or decrease is not sufficient to reflect the changes in corporate profitability. If the sales revenue grows faster than the net profit, the company's net profit margin will decline, indicating that the company's profitability is declining. Therefore, the net profit margin is more telling than the net profit. When increasing the sales revenue, the company must obtain more net profit in order to make net profit margin remained unchanging or improving. The amount of net profit depends on two factors, the total profit, and the income tax rate. The higher the income tax rate, the less the net profit. The analysis of the net profit margin can promote the enterprises to expand sales, at the same time pay attention to improve the management and profitability.

Return on assets is the percentage of operating profit to assets. The return on assets reflects the level of profit a company can make on all its assets and indicates the comprehensive utilization of asset.

The equation of return on assets is:

$$ROA = \frac{EAT}{A}, \tag{2.8}$$

where EAT *is* earnings after taxes. A is assets.

The higher the index indicates that the higher the efficiency of the use of assets, and indicates that enterprises achieved good results in increasing revenue, economizing on the use of funds and accelerating cash flow. Return on assets is a composite indicator. It can be broke up into net profit margin multiply total assets turnover. The company's profit has a close relationship with the volume of assets, the structure of assets and the management level. Factors that affect the return on assets are the price of the product, unit costs, sales volume and the amount of funds occupied. In order to correctly assess the level of economic efficiency of enterprises, mine the potential capacity to increase profits, this indicator can be used to compare with the historical data and the planning data, the average or advanced level of the same industry, and analyze the reasons for the differences.

Return on equity is the percentage of net profit to shareholders' equity. The index shows the level of return on shareholder equity and measures the efficiency of the company's use of its own capital.

The equation of return on equity is:

$$ROE = \frac{EAT}{E}, \tag{2.9}$$

where EAT is earnings after taxes, E is equity.

Return on equity shows the relationship between the investor's capital and the gain from the capital. The higher the indicator value, the higher the return on investment, the higher the profitability. Return on equity is a composite indicator. It is influenced by net profit margin, total asset turnover and financial leverage. Therefore, the return on equity can be improved by increasing the expenditure and increasing the asset's utilization efficiency. Also the return on equity can be increased by increasing the equity multiplier and financial leverage.

2.3.2 Solvency Ratio

Solvency reflects a company's ability to pay off its debts as well as the assurance degree of debtors' capital security. Long-term creditors are concerned about the ability of firms to pay interest on time and to pay off borrowings at maturity. Solvency ratio can reflect the security degree of the fund invested by investors. As the debt is long-term, the repayment of the principal and interest not only depends on the cash inflows, but ultimately depends on the profitability of enterprises. The main indicators that can measure the solvency of enterprises are debt ratio, debt to equity ratio and interest coverage.

The debt ratio is the ratio of total liabilities to total assets. It reflects how much of the company's total assets are obtained through debt. It can also measure the degree of protection of creditor's interest in liquidation.

The equation of debt ratio is:

$$Debt\ ratio = \frac{Total\ liabilities}{Total\ assets}. \tag{2.10}$$

Debt ratio reflect the company's comprehensive ability to meet long-term debt, the higher the ratio, the worse the ability of companies to repay the debt; on the contrary, the stronger the ability to repay debt. Conservative view thinks that the debt ratio should not be higher than 50%. And it is more appropriate when the ratio is equal to 60%. From the creditors point of view, the smaller the index, the better. In this case, their investment fund is more guaranteed. From the enterprise owner's point of view, the small of the index indicates that the use of financial leverage is not enough. So we should take both solvency indicators and profitability indicators into consideration for analysis.

Debt to equity ratio is the ratio of the total liabilities to the total amount of the owners' equity. It is a sign of stability of the enterprise financial structure.

The equation of debt to equity is:

$$Debt\ to\ equity = \frac{Tatal\ liabilities}{Equitiy}. \tag{2.11}$$

This ratio is actually another form of debt ratio, which reflects the relationship of the funds provided by the creditor and the funds provided by the shareholders, so it can reveal the financial risks of enterprises and the degree of protection of the debt provide by shareholders' capital. Comparing to shareholders, creditors own the priority of profit allocation and the residual claim. So the bigger the proportion of the equity, the lower the ratio is. The lower the ratio shows the more secure of the capital of creditors, the smaller the corporate's financial risk. Although a lower debt to equity ratio secure the solvency, it is also implies that the corporate lose a part of advantage taken by financial leverage effect. The main difference between debt ratio and debt to equity ratio is that the debt ratio focuses on analyzing the security of debt payment; however the debt to equity ratio focuses on revealing the stability of the financial structure and the bearing capacity of the self-owned funds to the debt risk.

Interest coverage is the ratio of EBIT to interest expense, which reflects the ability of the enterprise to cover the interest of the loan by using the profit obtained. It is the prerequisite for operation with borrowed capital.

The equation of interest coverage is:

$$Interest\ coverage = \frac{EBIT}{Interest\ paid}, \tag{2.12}$$

where $EBIT$ *is* earnings before interests and taxes.

Interest coverage not only reflects the degree of the debt protection, but also reflects the corporate profitability. The higher the interest coverage indicates that the stronger of solvency. If the index is too small, the company will face operating losses, and the risk of decline of security and stability to its debt. From the long run, the interest coverage should be higher than one so that the company has the normal ability to pay its debt. It is generally believed that the target of 3 is more appropriate.

2.3.3 Liquidity Ratio

Liquidity ratio refers to the ability of an enterprise to pay current liabilities with current assets. The ability to meet current liabilities also can reflect the company's operating capacity. The analysis of short-term liquidity often does not involve the profitability of enterprises but emphasize on the capability of current assets that can be quickly converted into cash. First, the amount of cash that converted by current assets is not directly related to the profitability.

Then, the short-term debt pressure is the financial risk that enterprises often face in their daily financial management, which has little relationship with the enterprise's ability to generate profit in a certain period, but has closed relationship with the asset liquidity and corporate's refinancing capacity. Short-term liquidity generally depends on the volume of working capital and asset liquidity. The main indicators of liquidity ratios are current ratio, quick ratio and cash ratio.

Current ratio refers to the ratio of current assets to current liabilities, which reflects the ability of an enterprise to repay current liabilities. It's important that if current assets can be converted into cash in the short term.

The equation of current ratio is:

$$Current\ ratio = \frac{Current\ assets}{Current\ liabilities}. \tag{2.13}$$

Current ratio measures how much current assets can guarantee a unit of current liability. The higher the current ratio indicates the stronger the short-term debt paying ability, the greater the chance of liquid liabilities being liquidated, the higher the security of creditors' fund. However, high current ratio is not a good indication. Because the higher the current ratio may results from ineffectively used of funds, which may influence the company's profitability. Experience has shown that the lowest limit of the current ratio is 1, while the current ratio is equal to 2 is more appropriate. It is because that the worst liquid assets such as inventory accounts for about half of current assets, the remaining stronger liquid current assets should be at least equal to the current liabilities, so that company's short-term liquidity is guaranteed. However, different industries have different standard of assessment. In general, the shorter the production and operation cycle, the lower current ratio is. Of course, the current ratio is also limited by certain limitations. For example, for some reason, a company can't collect its accounts receivable for a long time. So the high current ratio may be due to a high accounts receivable, which cannot truly reflect the short-term liquidity of enterprises. So it is better to combine the current ratio with quick ratio and cash ratio.

Quick ratio is the ratio of quick assets to current liabilities. Liquid assets are the balance of

current assets less inventories and the other items which are unstable and less liquid. The other items usually account for a small part, so they can be ignored.
The equation of quick ratio is:

$$Quick\ ratio = \frac{Current\ assets - Inventories}{Current\ liabilities}. \tag{2.14}$$

The quick ratio is more accurate and reliable than the current ratio in assessing the liquidity of the assets and its ability to repay short-term liabilities. The higher the quick ratio shows the greater the ability to repay current liabilities. It is generally considered that quick ratio equal to 1 is more appropriate. If the quick ratio is less than 1, it means that companies face a great debt-paying risk. If the quick ratio is greater than 1, it means there is an increasing opportunity cost caused by excessive cash and accounts receivable. This is only the general view, because different industries have very different quick ratio.

The cash ratio is the ratio of cash and marketable securities to current liabilities. It shows how much of the cash assets are guaranteed for one unit of current liabilities.
The equation of cash ratio is:

$$Cash\ ratio = \frac{Cash + Marketable\ securities}{Current\ liabilities}. \tag{2.15}$$

Cash and marketable securities are most liquid in the firm's current assets. Therefore, compared to the cash ratio or quick ratio, the cash ratio is more reliable. Although the cash ratio can best reflects a firm’s ability to directly meet its current liabilities, it is not simply means that the higher the better. A high cash ratio may be due to a large number of cash and deposits can’t generate profit, which implies that the cash assets did not get a reasonable use. The retention of large amounts of cash assets leads to an increase in opportunity costs. Usually it is appropriate to maintain the cash ratio around 0.3.

2.3.4 Activity Ratio

Operational capacity refers to the efficiency of enterprises in the use of their own resources. The operational capability of enterprises directly reflects the level of enterprise’s whole efficiency, which is the key to the improving the company’s profitability, solvency and liquidity. The management ratio measure the corporate’s situation of capital turnover. It is proportional relationship between capital turnover rate and the efficiency of the use of funds. The higher the efficiency of capital utilization, the higher the level of enterprise management is. The major management ratios are include total assets turnover，inventory turnover，accounts receivable turnover and accounts payment turnover.

Total asset turnover is the ratio of revenues to total assets. The total asset turnover ratio reflects the overall operating capacity of the enterprise.

The equation of total assets turnover is:

$$Total\ assets\ turnover = \frac{Revenue}{Tatal\ assets}. \tag{2.16}$$

The higher the value of assets turnover shows the faster turnover, the stronger the sales ability and the greater the operating capacity. From the formula we can see, the total assets turnover is influenced by revenues and total assets. If the company's total asset turnover rate suddenly rises, while there is not much change on sales revenue. This rising may be caused by scrapping a large number of fixed assets, rather than the enterprise's asset utilization efficiency increased. If this ratio is low, the efficiency of using assets for production and operation is poor, which will eventually affect the profitability of enterprises but also directly affects the dividend distribution of listed companies. Enterprises can use the "small profits but quick turnover" approach to accelerate the turnover of assets, increase total profits. On basis of total assets turnover, it should be further analyzed the various elements in order to identify the reasons for the change of total asset turnover. Through the analysis of the efficiency of asset utilization, managers can find out idle assets and underutilized assets, so as to handle idle assets to save money, or improve the efficiency of asset utilization to improve operating performance.

Inventory turnover is the ratio of costs of goods sold to average inventories. Through the calculation and analysis of inventory turnover rate, the number of times that inventory was used in a certain period can be measured, which is also a measure of the equilibrium efficiency of purchase, production and sales.

The equation of inventory turnover is:

$$Inventory\ turnover = \frac{Costs\ of\ goods\ sold}{Average\ inventories}. \tag{2.17}$$

Under usual circumstances, the higher the inventory turnover, the higher the efficiency of management inventory. The higher the inventory turnover shows that the more the amount of sales, and the company’s stronger ability to sale. On the contrary, the lower inventory turnover indicates that the company should do coordination in the purchase of raw materials, the delivery of production process, product distribution and cash received. So, Inventory turnover can not only reflect the company's sales ability, but also to measure the efficiency level of inventory management. Inventory turnover is not the higher the better, which should be based on the actual situation of the company. Exorbitant inventory turnover may result in the loss of sales opportunities due to lack of stock. In the terms of cost, ordering costs and carrying costs are high and fluctuating in some industries, therefore appropriate inventory is necessary. In the terms of profit, sometimes the appropriate increasing in price and reducing sales can bring better returns. Therefore, what level the inventory turnover should be controlled at is not a simple question, which needs to combine the company's operating strategy and balance many factors.

Accounts receivable turnover is the ratio of revenue to accounts receivable, which is the average number of times accounts receivable turned into cash during the year, is used to measure the degree of liquidity of accounts receivable.

The equation of accounts receivable turnover is:

$$Accounts\ receivable\ turnover = \frac{Revenue}{Accounts\ receivable}. \tag{2.18}$$

Accounts receivable turnover reflects the efficiency utilization of accounts receivable and capital turnover, and also reflects the stringent of credit policy. In general, the higher the accounts receivable turnover, the shorter the average collection period is, which indicates that the faster the collection of accounts receivable, less loss on bad debts, higher liquidity of assets and strong ability to fulfill obligations. Otherwise, the company's working capital is idled in the accounts receivable, which affects the production and management, capital turnover and the payment ability. On the other hand, if the company's accounts receivable turnover is too low, it means that the company pursues a tight credit policy, which limits the expansion of sales. In some situation, the accounts receivable can't reflect the actual situation, like the firm's operation exhibits a seasonal pattern, large-scale use of installment collection, large use of cash settlement method and so no. In general, the increased current ratio and quick ratio is conducive to short-term receivables. The increasing accounts receivable and slowing receivables recovery rate also increase the current ratio and quick ratio. Therefore, when assessing the degree of corporate credit risk, we should combine current ratio, quick ratio with accounts receivable turnover.

Accounts payment turnover is the ratio of revenue to accounts payable, which reflects the liquidity of the accounts payable. Also, it is a reflection of capacity to pay current liabilities and the ability to take up the supplier's funds.

The equation of accounts payable turnover is:

$$Accounts\ payable\ turnover = \frac{Revenue}{Accounts\ payable}. \tag{2.19}$$

If a company accounts payable turnover is lower than the industry average, it means the company can occupy more of the supplier's money compared to other companies, but also the company bears more repayment pressure. The company needs seller's credit as a source of low cost or non-cost financing. So under a certain length of operating cycle, decrease the accounts payable turnover can decrease the cash conversion cycle also decrease requirements on working capital financing. The higher accounts payable turnover indicates that the lower company's ability to occupy fund from suppliers, which indicates the suppliers' strict requirement of the payment, may be also indicate tight supply of raw materials. Keeping accounts receivable turnover and accounts payable turnover as close as possible so that cash inflows can offset cash outflows.

2.4 Pyramidal Decomposition and Influence Analysis

The ultimate goal of financial analysis is to reveal the full range of corporate financial and management position. Obviously, the above-mentioned financial ratio reveals only one aspect of the enterprise. Only connect all the isolated ratios with each other can we make a systematic assessment on the whole.

Pyramidal decomposition is to decompose the basic financial ratio layer by layer, so as to find out the component ratios that drive the basic ratio and then measure the impact from various component ratios to the basic ratio. This is a process from simple to complex, converting an indicator to multiple indicators and forming a system consisting of a set of interrelated elements. This is a process from complex to simple as well; decompose a relatively complex index into several sub-indicators and then study each sub-indicators so that complex research topic is greatly simplified and achieve the goal of easy analysis.

DuPont analysis is widely used in comprehensive financial analysis. It is a kind of classical method used to evaluate the profitability of the company, the return on shareholders' equity and the performance of the enterprise. The idea is to decompose the return on equity into a number of financial ratio products. As mentioned earlier, ROE is a comprehensive financial ratio, it reflects a company's profitability, debt paying ability and operating capacity. And, the determining factors of ROE are return on assets and financial leverage. So we can get the first layer of pyramidal decomposition:

$$ROE = ROA \cdot Financial\ leverage.$$

It can be also expressed as:

$$ROE = \frac{EAT}{Equity} = \frac{EAT}{Assets} \cdot \frac{Total\ assets}{Equity}. \tag{2.20}$$

Financial leverage can used to measure the financial risk of enterprises. The greater the financial leverage means the higher the degree of corporate debt. When the cost of debt is lower than the rate of return on investment, it is better for the company to operate on borrowings, use financial leverage to improve the ROE; however, the companies have to bear a greater financial risk at an expense.

Return on assets is the core of the whole analysis system, which reflects the profitability of all assets. It depends on the net profit margin and total assets turnover.

ROA can be expressed as:

$$\text{ROA} = \text{Net profit margin} \times \text{Tatal assets turnover},$$

$$ROA = \frac{EAT}{Assets} = \frac{EAT}{Rev} \cdot \frac{Rev}{Total\ assets}. \tag{2.21}$$

And we can get the second layer:

$$ROE = Net\ profit\ margin \times Tatal\ assets\ turnover \times\ leverage,$$

$$ROE = \frac{EAT}{Rev} \cdot \frac{Rev}{Total\ assets} \cdot \frac{Total\ assets}{Equity}. \tag{2.22}$$

We can decompose the net profit margin for a further step, from which we can separate the impact of interests and taxes.

The decomposition of net profit margin is:

$$\frac{EAT}{Rev} = \frac{EAT}{EBT} \cdot \frac{EBT}{EBIT} \cdot \frac{EBIT}{Rev}. \tag{2.23}$$

Tax burden is the net profit to the profit before taxes. The higher ratio means the smaller difference between numerator and denominator, the lower taxes are. The lower the tax burden means the lower impact on decrease of ROE. Interest burden is the percentage of the profit before taxes to the operating profit. The interest refers to the cost of debt. The higher the cost of debt, the lower the ratio is. It means the bigger impact on the decrease of ROE.

The third layer can be expressed as:

$$\text{ROE} =$$

$$\text{Tax burden} \cdot \text{Interest burden} \cdot \text{EBIT margin} \cdot \text{Tatol assets turnover} \cdot \text{Financial leverage},$$

$$ROE = \frac{EAT}{EBT} \cdot \frac{EBT}{EBIT} \cdot \frac{EBIT}{Rev} \cdot \frac{Rev}{Total\ assets} \cdot \frac{Total\ assets}{Equity}. \tag{2.24}$$

For the further analysis, the EBIT margin, total assets turnover and financial leverage can be transformed into other forms.

The equation is:

$$\frac{EBIT}{Rev} = 1 - \frac{TC-TI}{Rev}. \tag{2.25}$$

TC is total operating costs, which contains the costs of sales, administrative costs, costs on advertising and marketing and so on. TI is total income, which refers to the non-operating income such as income from government subsidy and interest income from bank deposits. TC and TI can be further decomposed according to the company's specific circumstances.

The transformation of total assets is:

$$\frac{Rev}{A} = \frac{365}{\frac{A}{Rev} \cdot 365}. \tag{2.26}$$

The total assets turnover can be transformed into the above formula. The denominator of the formula is the conversion period of total assets. The assets can be classified into long-term assets and short-term assets. So we can get the following formula:

The formula is:

$$\frac{A}{Rev}\cdot 365=\frac{LA}{Rev}\cdot 365+\frac{SA}{Rev}\cdot 365, \tag{2.27}$$

where LA is long-term assets, SA is short-term assets.

Long-term assets can be further decomposed into tangible assets, intangible assets, and financial investment. Short-term assets can be further decomposed into accounts receivable, Inventories and cash and cash equivalents.

Financial leverage can be converted into the following form:

$$\frac{A}{E}=\frac{1}{1-\frac{D}{A}}, \tag{2.28}$$

where D is total debt, A is total assets.

The debt ratio is obtained by transformation. According to the composition of liabilities, it can be divided into long-term debt and short-term debt.

We can get the following formula:

$$\frac{D}{A}=\frac{LD}{A}+\frac{SD}{A}, \tag{2.29}$$

where LD is long-term debt, SD is short-term debt.

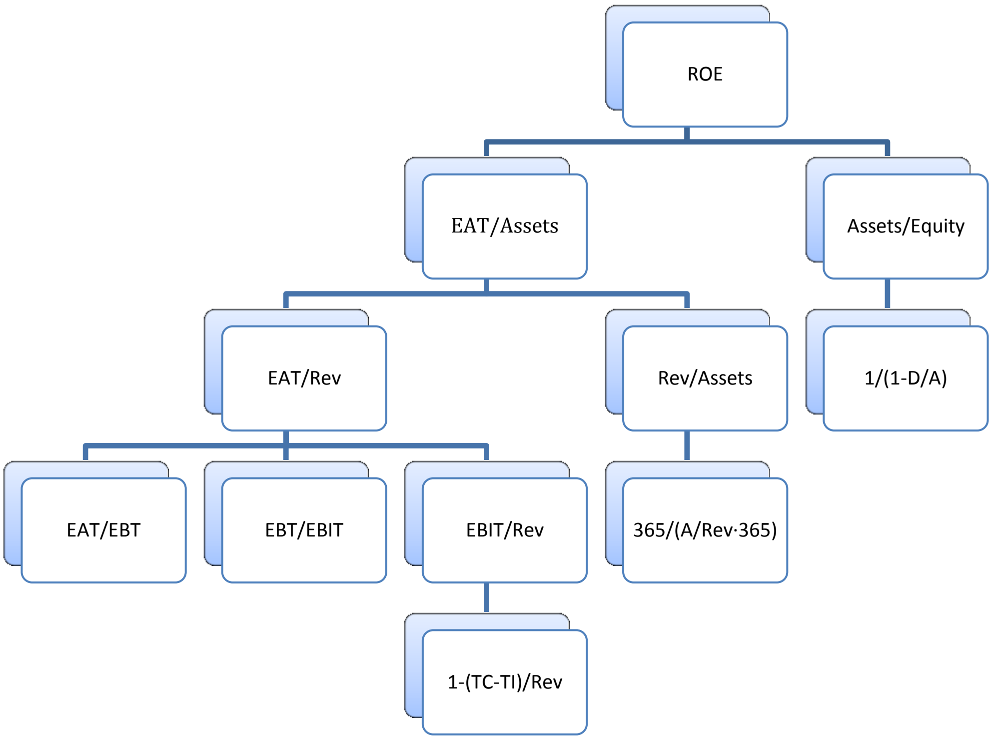
Long-term liabilities can be broken down into long-term bank loans, bonds issued. Short-term liabilities can be broken down into accounts payable and current borrowings.

Summary of the above, we can get the fourth layer：

$$ROE=\frac{EAT}{EBT}\cdot\frac{EBT}{EBIT}\cdot\left(1-\frac{TC-TI}{Rev}\right)\cdot\frac{365}{\frac{A}{Rev}\cdot 365}\cdot\frac{1}{1-\frac{D}{A}}. \tag{2.30}$$

The following is the chart 2.1. It shows the structure of decomposition of ROE.

Chart 2.1 Decomposition of ROE



Influence quantification is to measure the impact of the change of component items to the change of basic item. The degree of influence is expressed as a relative number. We can analyze the impact according to the size of the figures. There are four ways that can be used to do the influence analysis, methods of the gradual changes, logarithmic decomposition method, functional decomposition method and integral method.

Each method has its own advantages and limitations. Methods of gradual changes calculate with the absolute change of component ratio. It can be used whether the ratio is positive or not. But if the order of the component ratios is change when calculating, the result will be change as well. Logarithmic decomposition method is calculated with the index of change. The computing is very simple; there is just only one formula. It is suitable for the situation that there are a large number of component ratios. But the base of a logarithmic function must not be less than or equal to zero, it can't be applied when the ratio is negative. Functional decomposition method is calculated with the relative change. The computing will be very complex if there are a large number of component ratios. The calculation process of integral method is a little similar to functional decomposition method, they all use the relative changes. When there are a lot of component ratios, the calculation of integral method is simpler. The limitation is that this method only can be applied when the change of component ratio is small, otherwise we may get wrong results from economic point of view.

According to the specific situation of selected company, logarithmic function and integral method are used in this thesis. The calculation procedure of logarithmic method is as follows:

First, calculate the index of change in basic ratio and index of change in component ratio. The equations are:

$$I_x = \frac{X_1}{X_0}, \tag{2.31}$$

$$I_{ai} = \frac{a_{i1}}{a_{i0}}, \tag{2.32}$$

where X is basic ratio, a is component ratio.

Next, calculate the influence of the component ratio on the basic ratio.

$$\Delta x_{ai} = \frac{\ln I_{ai}}{\ln I_x} \cdot \Delta x, \tag{2.33}$$

where $\Delta x_{ai}$is absolute change of the basic ratio caused by the change of the component ratio i. Δx is absolute change in the basic ratio.

The calculation procedure of integral method is as follows:

First, calculate the relative change of component ratios and basic ratio.

The equation is:

$$R_{ai} = \frac{a_t - a_{t-1}}{a_{t-1}}, \tag{2.34}$$

where R_{ai} is the relative change of component ratio, a_t is the value of component ratio in period t, a_{t-1} is the value of component ratio in the previous period.

Then we can calculate influence of the component ratio on the basic ratio.

The equation is:

$$\Delta x_{ai} = \frac{R_{ai}}{\sum R_{ai}} \cdot \Delta x, \tag{2.35}$$

where $\Delta x_{ai}$is absolute change of the basic ratio caused by the change of the component ratio i. Δx is absolute change in the basic ratio.

3. Assessment of Financial Position

This chapter is the practical part of the whole thesis. In this chapter, we take the theoretical knowledge described in chapter 2 into practice. There are three subchapters in total. They are the profile of China Huiyuan Juice Group Limited, common-size analysis and financial ratio analysis of the selected company. Some fundamental information is introduced in subchapter 3.1. In subchapter 3.2, it's the common-size analysis of the company's financial statement. In subchapter 3.3, the financial ratio analysis is used to analyze the company's liquidity, solvency and management. The aim is to get a general impression of the company's financial position.

3.1 The Profile of China Huiyuan Juice Group Limited

This subchapter is divided into four sections. We describe the basic information of China Huiyuan Juice Group Limited in the first section, which contains its characters, group philosophy and social contribution, management system and types of products. In the second section, we introduce the history of the company; list the important events and emphasis the Coca-Cola M & A event. In the third section, industry status is described. It contains the situation of China's soft drinks industry and the position of Huiyuan Juice Group Limited in the industry. Lastly, it is the company's policy carried out in recent years.

3.1.1 Basic information of China Huiyuan Juice Group Limited

Huiyuan Group was established in 1992. There are more than 140 operating entities at present. It links more than 16 million acre of high quality fruit, vegetable and tea planting base and established a national sale network, and build an agricultural industrialization management system. Huiyuan group takes the juice industry as the main body, and formed a mutual promotion and development pattern of Huiyuan agriculture, Huiyuan fruit industry and Huiyuan Juice.

Huiyuan agriculture started in 2006, originated from Zhu Xinli, the chairman's dream. At present, Huiyuan agriculture has built 19 agricultural industrialization parks in 13 provinces and autonomous regions in China, forming an industry diversity pattern of cultivation, breeding, trade logistics, processing, modern agricultural experience, tourism and so on.

Huiyuan Fruit industry is mainly engaged in research and development, processing, marketing and other business of fruit products, cocktails, wine and snack. Huiyuan established more than 20 fruit processing base. It process apple, peach, pear, apricot, and strawberry, orange, hawthorn, kiwi, sea buckthorn and other fruit pulp, concentrated juice products. It has 27 production lines, and process various types of fruit nearly 300 million tons.

Huiyuan juice has more than 200 fruit processing, beverage filling and other production lines. It owns advanced production technology, fruit cold crushing, ultrafiltration; UHT ultra-high temperature instantaneous sterilization and aseptic cold filling are in a leading position in the world. Huiyuan's market share of pure juice and concentrated juice has been in a national leading position. Huiyuan’s concentrated pulp, concentrated fruit juice and some fruit juice drinks exports five continents of more than 30 countries and regions. According to AC Nielsen's data of the first half of 2016, Huiyuan juice is the largest producer of 100% fruit juice area and concentration of fruit and vegetables juice area in China, in which the market share are 60% and 39.4%.

Group philosophy and social contribution

Huiyuan takes "nutrition the public, benefit agriculture and rural" for the corporate mission. It researched and developed more than 600 kinds of health drinks and food. It advocates and leads the health consumption, promotes the development of planting and food processing industry. Huiyuan paid hundreds of billions of various types of taxes, donated more than 500 million yuan to the social welfare.

Management system

Although Huiyuan established the board of directors and shareholders' meeting, however, the chairman Zhu Xinli mastered the absolute right to speak. In the human resources construction, the concept of "cronyism" is taken. The management is mainly composed of relatives of the chairman Zhu Xinli and the veterans who create Huiyuan Juice with Zhu. It leaves a small space for entrepreneurs and professional managers. For a long time, some of Zhu Xinli’s immediate relatives hold important positions, such as his daughter Zhu Shengqin take vice president for many years. In 2014, in order to dislodge the family management system, Huiyuan hired Su Yingfu who has rich experience in the fast product as chief executive officer.

Product type

Huiyuan’s main products are focused on three categories, which are 100% juice, concentrated fruit and vegetable juice and fruit juice drinks. Among them, 100% juice and concentrated juice accounts for about 26% of the company’s sale respectively, fruit juice drinks accounts for about 20%. Huiyuan has rich variety of products with 100% juice series, pulp drinks series, and fruit juice drinks series, children's juice series, plant protein series, and other series of products. Each product has its own characteristics and consumer orientation. For example, the sugar-coated gourd juice is fused with more than 20 years of experience in hawthorn processing, combined with traditional Chinese culture, Chinese traditional drinks features. "Fruits and Vegetables 5 + 7" is a special fruit and vegetable juice developed by Huiyuan specifically for children aged 3-6 years. It is rich in orange, peach, apple, kiwi, mango five kinds of fruits and tomatoes, green cauliflower, carrots, asparagus, spinach, Pumpkin and other seven kinds of vegetables contained in vitamins and trace elements, can effectively supplement the lack of nutrients in children's diet. "Le base" is natural soda water, mainly positioning high-income people. “Juice Cola” combine fruit juice with carbonate, positioning teenagers. “Fresh pancake” series is NFC juice.

3.1.2 History of China Huiyuan Juice Group Limited

In 1992, Deng Xiaoping's southern tour speech encouraged people to go out from the system boldly. And Zhu Xinli founded Huiyuan Company in this year. In 1993, Huiyuan introduced concentrated fruit juice processing equipment from Germany. The Huiyuan began to export concentrated apple juice and the headquarters moved from Shandong to Beijing. In 1995, Huiyuan first package 250ml pure fruit juice successfully listed and selling. Following the success of the first products, Huiyuan began to accelerate the national layout. First it advertises in the prime time of China Central Television in 1997. “Drink Huiyuan juice, take the road of health” became a well-known slogan. And then the company set up factories over the country in 1998, and set up a national marketing network in 2000. Huiyuan entered a period of rapid development. In 2007, Huiyuan successfully listed on the Hong Kong Stock Exchange. From 1992 to 2007, Huiyuan Juice was brilliant for 15 years.

Coca-Cola M & A event

In September 2008, Coca-Cola announced that it would acquire Huiyuan Juice Group for $ 2.4 billion. The acquisition price is 3 times to Huiyuan’s total stock price. After this news came out, a great uproar was quickly set off. According to an online survey of nearly 70,000 internet users participated, up to 82% of Internet users opposed Coca-Cola acquisition Huiyuan juice. But Huiyuan’s head Zhu Xinli said "Enterprises to be a son to raise, to be a pig to sell." On March 18, 2009, China's Ministry of Commerce took “Coca-Cola's acquisition proposal will affect or limit competition, is not conducive to the healthy development of China's fruit juice industry" as a reason to reject the acquisition. If the acquisition is successful, the finished company will have more than 50% market share in China's beverage market (fruit juice, carbonated drinks and water). The case has become the first case has not been passed since the implementation of China's anti-monopoly law. It was a burning issue at that time. After the acquisition offer from Coca-Cola, Huiyuan reduce sales system sharply, revoke of sales channels and plan to concentrate on orchard and fruit processing. After the merger was rejected, Huiyuan readjust the strategic plan. Billions of investments and thousands of acres of land were forced to re-layout, re-recruitment of employees and dealers, re-channel. Since then, Huiyuan is associated with losses, liabilities, dilemmas and bottlenecks.

3.1.3 Industry Status

China's soft drinks industry development can be divided into five waves. The first wave is led by carbonated drinks. The representative brands are Coca Cola and Pepsi. In 1979, after some packaging polished, Coca Cola rooted in the Chinese market. The second wave is led by bottled drinking water. In the 1990s, Wahaha rose rapidly with bottled drinking water. The third wave is tea drinks. In 1996, the Chinese first tea drink product "sun rose ice tea" began to sell. Master Kong began to participate in tea market in 1999. So far the market formatted a situation of tripartite confrontation of Master Kong, Uni-President and Wahaha. The forth wave is led by fruit drinks. In 2001, Uni-President enterprise launched orange juice drink product and made a success. Master Kong “daily C”, Wahaha fruit juice, Queer, farmer orchard followed up, contributed to the fruit juice consumption. The fifth wave is led by functional drink. In 2004, there appeared the products like Robust's "pulsating", Wahaha's "activation" in the market. Since then the rise of the Wong Lo Kat (JDB) herbal tea led the wave of herbal tea. At present, there formed a product structure of bottled drinking water, fruit juice and vegetable juice drinks, carbonated drinks, protein drinks and tea drinks five major categories in the market.

Huiyuan Juice has been focusing on the field of fruit juice. At present, the common fruit juice and fruit juice drinks in the market can be divided into the three categories. The first category is fruity drinks. The juice content is from 5% to 10%. This camp is represented by Uni-President’s orange juice and Master Kong "daily C". The second category is juice drink. The fruit juice content is of 10-99%, from which the drink with a content of 10-25% called low fruit juice and the drink with a content of 26% -99% is concentrated fruit juice. The last one is the highest concentration 100% juice. This is a kind of fruit juice made by fresh fruit without any water (NFC) or restore lost water with concentrate fruit juice (FC) which means add the same amount of water as the natural moisture that lost during the concentration process. FC (from concentrate) retains the main nutrients in the fruit, the price is also cheaper. NFC (not from concentrate) is processed in low temperature environment; fresh juice is directly taken into pasteurization. NFC’s nutritional loss is relatively small and better retains the original flavor. However, the disadvantage is that this juice is suitable for cryopreservation, quality guarantee period is relatively short; In addition, because it is a real pure fruit juice, coupled with storage is not easy, so the cost is higher. Compared with other types of fruit juice, due to the production process is complicated, harsh shipping conditions, short storage time and other factors, the price of NFC fruit juice is relatively high. In 2005, Huiyuan Launched this two kinds of new product s of FC and NFC.

In China's fruit juice consumption structure, fruity drinks and low concentrations of fruit juice is the current mainstream. 100% juice only takes 5% market share. But the shift of consumer preferences from low concentrations fruit juice to high concentrations has become the industry consensus. 100% juice is in line with the general direction of consumer upgrades.

But the market is still in the incubation period and the industry pattern is uncertain.

In recent years, the domestic beverage industry has been circulating "development bottleneck" argument. The sale of domestic soft drinks is 130 million tons in the first three quarters of 2015, which increased only 4% compared with the previous year. In 2014, the growth rate was 13%. From 2001 to 2011, the annual average growth rate of soft drinks sales in China was over 20%. Since the beginning of this century, beverage industry opened the "golden decade" of rapid development. The big beverage companies are in the rising sales, at the same time, they also accelerate the pace of expansion. Today, the expansionary production capacity and weaken consumer demand has formed a huge contradiction. Industry is in overcapacity, enterprises are in trouble. Huiyuan Juice sold nine subsidiaries in 2015, which may be a microcosm of overcapacity across the industry.

3.1.4 Company Policy

Huiyuan Juice has been struggling on the edge of the loss in recent years. Actions like selling the plant, stripping assets are staged frequently. Huiyuan has been adjusting strategy on new products and adjusting the company's framework.

Throwing assets

From 2013, Zhu Xinli proposed a strategy to optimize the production and sales network, stripping inefficient assets and improving operational efficiency. Huiyuan Juice broke the past silence, began to drastic reform. Huiyuan Group sold Shanghai Huiyuan and Chengdu Huiyuan at the price of 300 million RMB and 350 million RMB separately in 2013. In 2014, Huiyuan sold Huanggang Huiyuan and spend 118 million RMB acquainting Suntory China and then sold nine subsidiaries in 2015. Huiyuan also sold some inefficient factories. On the one hand, it can directly reduce the cost of the supply chain, supplement the working capital, and has an immediate effect to debt. On the other hand, the profit from the sales can be put into new product development and marketing.

Big Huiyuan Idea

All along, Zhu Xinli does not want to stick to “Huiyuan Juice” the single brand; "Big Huiyuan idea" is the dream. He wants Huiyuan to be a comprehensive beverage group. The products should include tea drinks, health drinks, coffee drinks, fruit juice, functional drinks and many other products, and now the juice area that Huiyuan is best at is only one part of the idea. Huiyuan Juice purchased Suntory tea drink in 2014, and later announced to enter into functional drinks market. The proceeds from the sale of the subsidiary are used for marketing of new products and new line expansion.

Personnel adjustment

From 2003, Zhu Xinli changed the family management mode. Zhu Xinli engaged professionals to work for the company. According to Huiyuan Juice personnel statistics, since the second half of 2013, there are nearly 100 managers join the management team, most of them have a mature FMCG industry experience. The company also set up a strategic and management committee to re-increase the focus on fruit juice business.

Depth distribution strategy

Huiyuan believes that deep distribution is important for fast moving consumer goods industry. They think only to establish their own logistics center, distribution center, and establish their own terminal sales service team, they can win in the terminal. The so-called depth distribution is that the manufacturer is in the dominant position of sales channel, and deep participates in channel management. Zhu Xinli made important instructions on the depth distribution. He said it must be done and be insisted, couldn’t be discussed and hesitated. Huiyuan intended to build their own logistics and distribution center. Shunyi Huiyuan and Mega Logistics signed an 8-month transport trading agreement in 2014, and in 2015 Mega Logistics was injected into Huiyuan Juice Group.

3.2 Common-size Analysis of the Company

Common-size analysis is in this part. We do both horizontal and vertical common-size analysis of financial statements of Huiyuan Juice. The simplified balance sheet, simplified income statement and simplified cash flow statement are shown in annex 2 and annex 4 and annex 5. The way how to do the analysis is described in Chapter 2.

3.2.1 Common-size Analysis of Balance Sheet

Here is common-size analysis of balance sheet of Huiyuan Juice Group Limited from 2011 to 2015. The calculations are based on the simplified balance sheet, which can be seen in Annex 2. In horizontal analysis, we choose the data in 2011 as the basic period and calculate the absolute change and development of items of later years compared to the year 2011. Table 3.1 shows the absolute change. And the calculation is based on equation (2.1).

Table 3.1 Horizontal analysis of balance sheet (absolute)

	2012/2011	2013/2011	2014/2011	2015/2011
Inventories	455653	175707	61673	143780
Accounts receivable	259709	688629	1016541	960689
Cash and short term investment	251422	1129732	1027204	2425984
Current assets	*966784*	*1994068*	*2105418*	*3530453*
Land use rights	-38194	339439	314599	166924
Property, plant and equipment	48494	991350	753731	456611
Intangible assets	-19347	3770109	3743140	3704435
Other long-term assets	155340	71980	171509	179220
Long-term assets	*146293*	*5172878*	*4982979*	*4507190*
Total assets	**1113077**	**7166946**	**7088397**	**8037643**
Accounts payable	607245	333179	677557	622495
Current borrowings	-633032	-491826	690078	-532535
Other short-term liabilities	-59706	807360	-49574	165385
Current liabilities	*-85493*	*648713*	*1318061*	*255345*
Long-term borrowings	1122426	1784308	274810	2450022
Convertible bonds	53820	-725328	135054	181668
Other long-term liabilities	12028	10679	36690	4614
Non-current liabilities	*1188274*	*1069659*	*446554*	*2636304*
Total Liabilities	**1102781**	**1718372**	**1764615**	**2891649**
Equity	**10296**	**5448574**	**5323782**	**5145994**
Liabilities & equity	**1113077**	**7166946**	**7088397**	**8037643**

Here is the table 3.2. It shows the development of all items contained in balance sheet. We also choose the value in 2011 as the benchmark. The calculation is based on the equation (2.2).

Table 3.2 Horizontal analysis of balance sheet (development of items %)

	2012/2011	2013/2011	2014/2011	2015/2011
Inventories	139.64	115.28	105.36	112.51
Accounts receivable	122.26	159.04	187.15	182.36
Cash and short term investment	165.22	393.08	366.48	729.35
Current assets	*135.79*	*173.81*	*177.94*	*230.69*
Land use rights	95.13	143.27	140.10	121.28
Property, plant and equipment	100.81	116.59	112.61	107.64
Intangible assets	95.77	923.56	917.67	909.22
Other long-term assets	223.83	157.38	236.72	242.86
Long-term assets	*101.99*	*170.43*	*167.84*	*161.36*
Total assets	**111.08**	**171.34**	**170.56**	**180.01**
Accounts payable	145.23	124.82	150.47	146.37
Current borrowings	74.06	79.85	128.28	78.18
Other short-term liabilities	49.01	789.50	57.66	241.24
Current liabilities	*97.81*	*116.63*	*133.79*	*106.55*
Long-term borrowings	2218.90	3468.40	618.78	4725.13
Convertible bonds	107.42	0.00	118.62	125.05
Other long-term liabilities	113.09	111.62	139.92	105.02
Non-current liabilities	*236.55*	*222.92*	*151.32*	*402.95*
Total Liabilities	**123.12**	**136.02**	**136.99**	**160.62**
Equity	**100.20**	**203.27**	**200.91**	**197.54**
Liabilities & equity	**111.08**	**171.34**	**170.56**	**180.01**

From table 3.1 and 3.2, we can see the general change tendency of items existed in balance sheet. During 2011-2015, total assets, equity and liabilities continue increasing. There is only a little drop in 2014. Comparing the difference of the results to its front and back value, we can find that the fastest growth year is 2013. In absolute change, it leaps from 1113 million to 7167 million RMB. The development ratio is 60% higher than the last year. The decline in 2014 is relatively small, only 0.78% drop compared to 2012. Current assets keep a growth trend continuously. The fastest growth rate is in 2015, which is 53% higher than last year, and then followed by 2013. The long-term asset grows before 2013 and declines after 2013, and there is a great leap from 2012 to 2013. Eventually long-term asset is 61% higher than 2011.The change of current liabilities is a process from decrease to increase and decrease again. From 2011 to 2012 and 2014 to 2015, current liabilities decrease and in other fiscal year it increase And eventually it increased 6.55% compared to the first year. On the contrary, non-current liabilities increase from 2011 to 2012 and 2014 to 2015, and decrease in the other fiscal years. Before 2013, equity is a trend of increase and a trend of decrease after 2013. There is really a huge leap in 2013. It increased nearly 70% compared to 2012. And in the later years the decrease keeps at 3%.

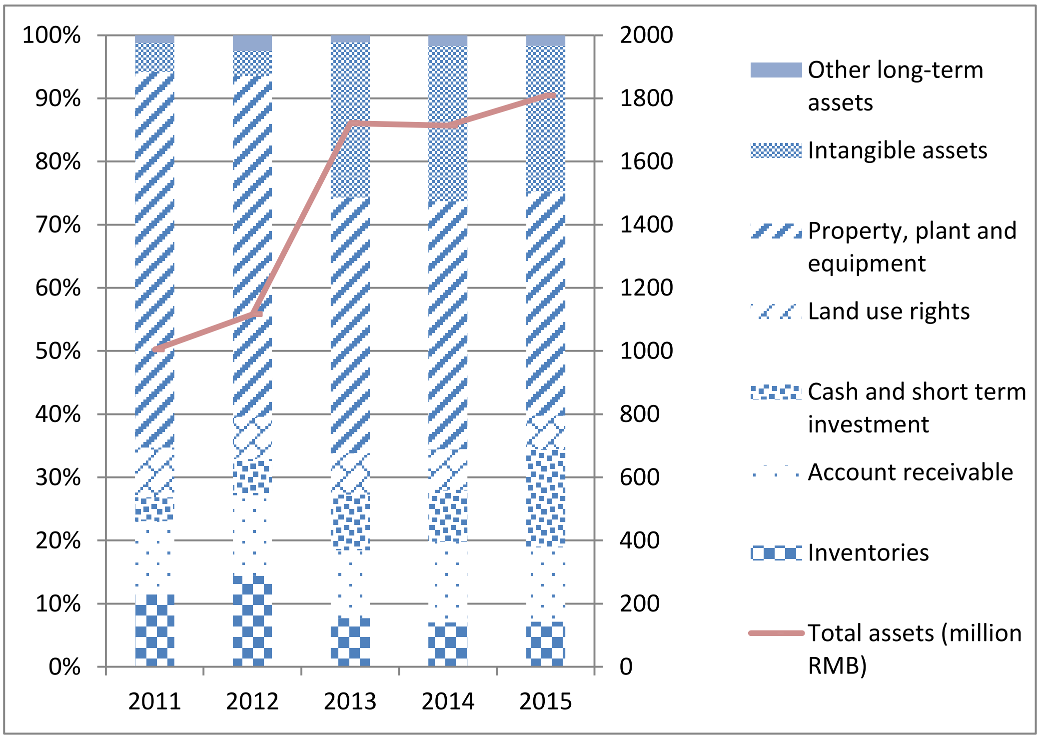
Let’s focus on the huge growth of total assets, equity and liabilities in 2013. The growth is mainly caused by the increase in long term assets (intangible assets), originally caused by shares (convertible preference shares) and other short term liabilities (convertible bonds). The increase in tangible assets is caused by the significantly increase in goodwill. On 21 October 2013, Huiyuan Juice acquired China Huiyuan Industry Holding Co., Ltd. as a price of 59 billion. The company is one of China's leading producers of fruit juice and pulp, and the major shareholder is Zhu Xinli. After the acquisition the company becomes a vertically integrated enterprise that covers the value chain from food processing to sales and marketing. So the goodwill is the difference between the purchase price and the fair value of the net assets of the merged enterprise. The company raised capital by issuing convertible bonds and convertible preference shares to meet the acquisition.

The decrease of assets, equity and liabilities in 2014 is caused by the decrease of long term borrowings, mainly in bank borrowing and other short term liabilities (convertible bonds). In this year the convertible bonds in short term liabilities is zero, because the company redeemed the relevant convertible bonds in advance. And the decrease in assets mainly exists in inventories, cash, equipment and construction in process.

The increase in long term borrowings in 2012 and 2015 contributes to the increase of assets, equity and liabilities. In 2012 there is a huge increase in bank borrowings, which is 22 times to 2011. Correspondingly, the growth of asset is mainly in inventory and other long term assets (investment and long-term receivable). Corporate bond and financial lease contribute to the increase in 2015. Correspondingly, the growth of asset is mainly in cash and short term investment.

Next, it is the vertical common-size analysis of Huiyuan's balance sheet. The analysis is divided in two parts. One is the vertical analysis of total assets; the other is the vertical analysis of equity and liabilities. We choose the total assets, equity and liabilities as the benchmark as 100%. Equation (2.3) is used in the calculation. The specific calculation results can be found in annex 3. And the following charts 3.1 and 3.2 shows the structure of total assets, equity and liabilities.

Chart 3.1 Vertical analysis of balance sheet (Total assets)



From Chart 3.1 and table 3.4, we can see the company's assets structure. Non-current assets account for a large proportion, is about 70% in the fiscal years. There is a slight decline from 2011 to 2012. From 2012 to 2013, it pick up. And there is a decline trend from 2013 to 2015. In long term assets, property, plant and equipment take an important position. It contributes half of the total assets in 2011 and 2012. Obviously, it is declining year by year. But there is no obvious change in absolute value. So the decline is caused by the increase of intangible assets. The intangible asset is the second important component generally and the change of this item is caused by the acquisition activity in 2013. The third important item is land use rights. There is a small drop in 2012 compared to 2011, which caused by the sale of land use right. Although, there is no obvious change from 2013 to 2015 from the perspective of proportion, the absolute value rose in 2013 due to the acquisition activity and declined in 2015 due to the sale of nine subsidiaries.

The current assets take a lower proportion. It is manly contributed by accounts receivable. It keeps at around 11%. In 2012, the inventory rise from 11% in 2011 to 14%, which is caused by the rise of material. In later years, it keeps around 7%. Cash and short term investment keeps a tendency of increase; there is only a small drop in 2014.

Chart 3.2 Vertical analysis of balance sheet (Total Liabilities & Equity)

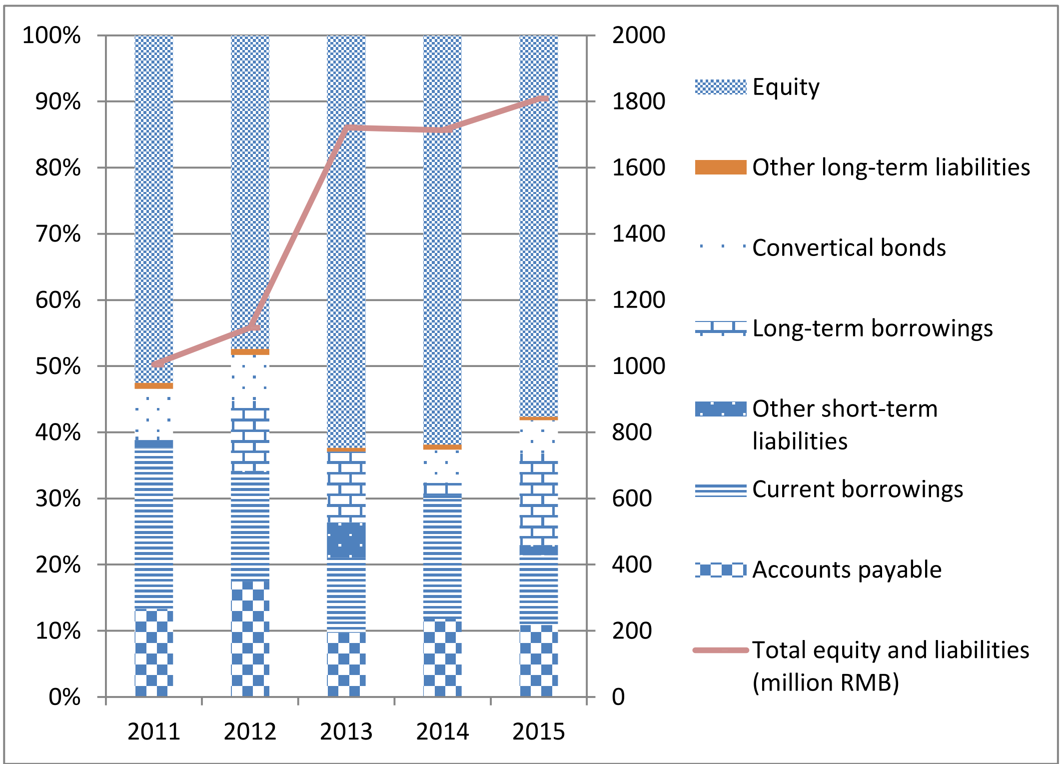


Chart 3.2 shows the company’s structure of source of capital. Equity accounts for the half. It decreased in 2012, then increase in2013, and decreased in the later years. Correspondingly, we can also know the trends of liabilities. The increase of equity in 2013 attributed to the issuing of common shares and convertible preference shares.

In liabilities, the current liabilities take a bigger proportion, which account about 30%. It decreased from 2011 to 2013; in 2014 it increased to 30.45% and then decreased in 2015, from which we can also know the changes of long term liabilities. Among current liabilities, a current borrowing is the most important component and the second is accounts payable. The non-current liabilities are mainly contributed by long-term borrowings and convertible bonds. The proportion of long-term borrowing is very erratic. It is only 1% in 2011 and 2% in 2014, and in other years it is about 10%, in 2015 it reached to 14%, which is caused by the changes in bank borrowings and issuing of corporate bond in 2015. The proportion of convertible bond is much stable, only in 2013, they were redemption in advance.

3.2.2 Common-size Analysis of Income Statement

Here is the common-size analysis of income statement of Huiyuan Juice Group Limited from 2011 to 2015. The computing is based on the simplified income statement, which can be found in Annex 4. In horizontal analysis, we choose the data in 2011 as the basic period, and calculate the absolute and relative change of later years compared to the year 2011. Table 3.3 shows the absolute change. And the calculation is based on equation (2.1).

Table 3.3 Horizontal analysis of income statement (absolute)

	2012/2011	2013/2011	2014/2011	2015/2011
Revenue	155170	678289	766454	1856700
Cost of goods sold	4323	244268	136685	651669
Gross profit	**150847**	**434021**	**629769**	**1205031**
Operating expense	50098	454545	695754	979197
Operating income	**100749**	**-20524**	**-65985**	**225834**
Non-operating income(expense)	-346841	48590	-285480	-555164
EBIT	**-246092**	**28066**	**-351465**	**-329330**
Interest paid	108279	65138	108813	142530
EBT	**-354371**	**-37072**	**-460278**	**-471860**
Income tax expense(credit)	-60035	37994	-22775	67457
Net profit	**-294336**	**-75066**	**-437503**	**-539317**

The following table is table 3.4. It shows the relative change of all items in 2012 to 2015 compared to the value of items in 2011 contained in income statement. So the value in 2011 is the benchmark as 100%. The calculation is based on the formula (2.2) that can be found in chapter 2.

Table 3.4 Horizontal analysis of income statement (development of items %)

	2012/2011	2013/2011	2014/2011	2015/2011
Revenue	104.06	117.73	120.03	148.53
Cost of goods sold	100.15	108.54	104.78	122.78
Gross profit	**115.64**	**145.01**	**165.31**	**224.96**
Operating expense	104.15	137.62	157.59	181.04
Operating income	**58.69**	**108.41**	**127.05**	**7.41**
Non-operating income(expense)	58.38	105.83	65.74	33.38
EBIT	**58.25**	**104.76**	**40.37**	**44.13**
Interest paid	146.36	127.89	146.59	161.03
EBT	**0.43**	**89.58**	**-29.33**	**-32.58**
Income tax expense(credit)	-32.24	183.69	49.83	248.59
Net profit	**5.20**	**75.82**	**-40.91**	**-73.70**

As we can see in table 3.3 and 3.4, the revenue is continuously growing from 2011 to 2015; the most significant growth is in 2013 and 2015. The growth in 2013 can be allocated to the sale of concentrated fruit and vegetable juice and fruity drink, and benefit from the adjustment of product structure. The flesh series and sugar-coated gourd juice are welcomed by the market. The growth in 2015 is benefit from the growth of sale of 100% juice. The company launch new product NFC fruit juice" fresh pancake" and cold chain fruit juice "fruit 100". The cost of goods sold grows along with the growth of revenue. Only in 2014, it decreased compared to last year, which benefited from decline of the purchase price of part of raw materials. By synthesizing the change trend of revenue and cost of goods sold, the gross profit is in a growing trend and relatively higher in 2013 and 2015.

Operating expense continues growing in the fiscal years. The growth rate exceeds 20% from 2013 to 2015. The operating expense in 2013 can be mainly allocated to selling and marketing expense. The increase in 2014 mainly caused by increased promotional expenses and increased freight costs. The increase in 2015 mainly caused by increased employee welfare expenses. Operating expenses are over gross profit, so the operating income is all negative in the fiscal years. As we can know from the absolute change of operating income, in 2012 and 2015, the loss of operating is smaller than the year 2011, and in other years the loss expand. According to the relative change, the relative number of 2012 and 2015 are 58.69% and 7.41%. They are less than 100%. That's to say, the operating income in these two years are smaller than 2011. In 2015 the reduced extent of loss is bigger than 2012. The gross profit of 2015 is the highest in the five years, which contribute to the reduction of loss. The positive growth of negative number means the negative change. So the increased range of loss of 2014 is larger than 2013. The situation result from the larger operating expense.

Non-operating income shows a decreasing trend generally. Only in 2013, there is an increase. This increase can be contributed to gain on disposal of subsidiaries. The decrease in 2012 is allocated to the change of fair value of convertible bonds. At the beginning of 2011, Huiyuan Juice shares fell sharply, resulting in the value of warrants shrink, which reflects the substantial gains in the statement. In 2012, the share was stable. So the change of fair value was little, which resulted to the decrease of non-operating income compared to 2011. The decrease in 2014 is allocated to loss on early redemption of convertible bonds. And the decrease in 2015 can be mainly allocated to loss from the change of exchange rate. We can get EBIT by calculating operating income and non-operating income. The change of EBIT is positive only in 2013. In the other years, it's all smaller than 2011. And the largest reduction is in 2014, which due to the low operating income.

The amount of interest paid are all higher than 2011. It is an increasing trend generally, only decrease in 2013. The decrease in 2013 is due to the decrease expense of bank borrowings compared to last year. The largest increase compared to previous year is in 2012, which can be contributed to the increased bank borrowings interest expense. The interest payment mainly exists in bank borrowings and convertible bonds. And in 2015 the company expands its way of financing. There are another two kinds of interest payments, financial lease and corporate bond. We can get earnings before taxes by calculating EBIT and interest paid. EBT are all lower than 2011. In total, it's a decrease trend, only increase in 2013, which due to the relative high EBIT.

In 2012 and 2014, the income tax expense are lower than 2011. It is higher in the other years. And in 2012 it a tax credit, that to say the tax expense is negative. It is caused by the preferential tax rates on the income of certain subsidiaries. The tax exemptions exceed the tax liability. After putting income tax into calculation, we can get net profit. In 2014 and 2015 there is no profit but a loss. It is a decreasing trend in generally except 2013, which benefit from the income tax credit.

Next is the vertical analysis of income statement. The revenue is chosen as the benchmark as 100%. Equation (2.3) is used in the calculation. The specific calculation results can be found in annex 6. And the following charts 3.3 shows the structure.

Chart 3.3 Vertical analysis of income statement

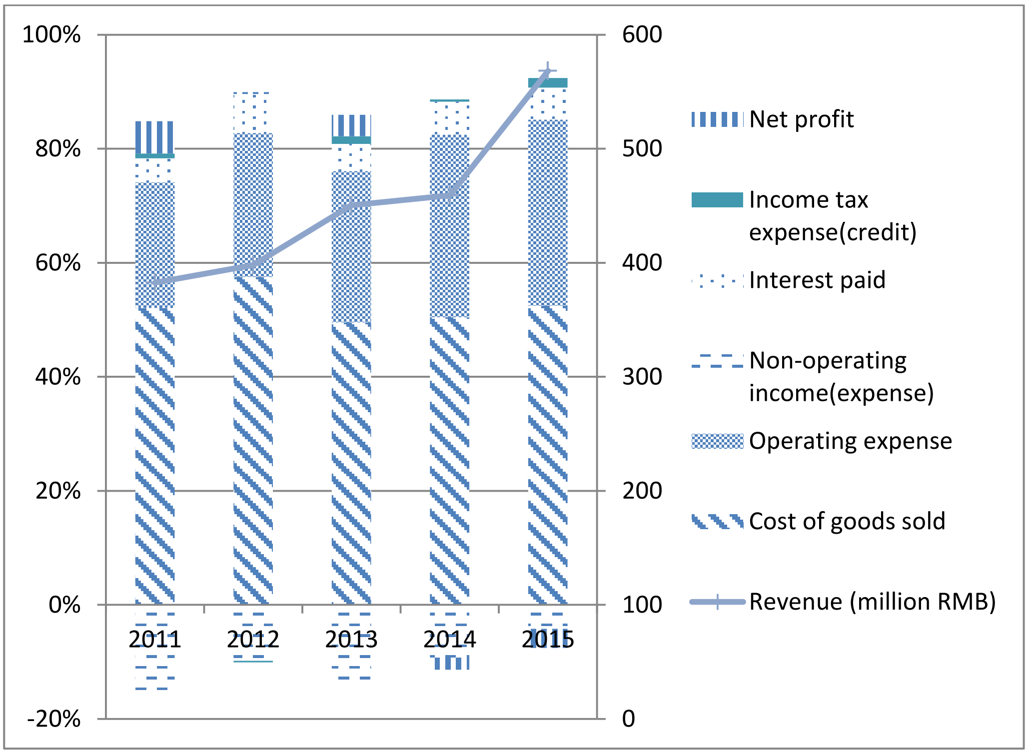


Table 3.8 and chart 3.3 show the structure of the company's revenue. First, let's see the non-operating income, its negative proportion to revenue. The total expense and net profit exceed the whole revenue. So the exceed part need to be made up by non-operating income. Non-operating income is not directly related to the company's production and business activities. It is not so stable. It is a downward trend on the whole. As we can see, the cost of goods sold takes a really large part of revenue, it's always between 75% and 60%, and the proportion is decease year by year. The second largest part is operating expense. It is

increasing on the whole, and the highest year is 2014 and then followed by 2015, that maybe result in the loss in 2014 and 2015. What's more, in the years that operating expense accounted for a relative small proportion, net profit will always be larger. The company has some problems in the management. Net profit always takes a small part of revenue, even in individual years, it is negative. The company has a big problem with profitability.

3.2.3 Common-size Analysis of Cash Flow Statement

Here is common-size analysis of cash flow statement of Huiyuan Juice Group Limited from 2011 to 2015. The computing is based on the simplified cash flow statement, which can be found in Annex 7. In horizontal analysis, we choose the data in 2011 as the basic period, and calculate the absolute and relative change of later years compared to the year 2011. Table 3.5 shows the absolute change. And the calculation is based on equation (2.1).

Table 3.5 Horizontal analysis of cash flow (absolute)

	2012/2011	2103/2011	2014/2011	2105/2011
Net cash flows from operating activities	-116,651	471,280	-214,340	115,944
Net cash flows from investing activities	362,292	595,088	555,730	792,103
Net cash flows from financing activities	-91,022	-736,492	-671,976	-71,771
Exchange gains/(losses) on cash	5,347	1,829	2,949	16,309
Total increase(decrease) in cash flow	159,966	331,705	-327,637	852,585

Here is the table 3.6. It describes the relative change of cash flow of the company. The value in 2011 is the benchmark. And the calculation is based on equation (2.2).

Table 3.6 Horizontal analysis of cash flow (development of items %)

	2012/2011	2103/2011	2014/2011	2015/2011
Net cash flows from operating activities	54.89	282.25	17.11	144.84
Net cash flows from investing activities	50.30	18.36	23.76	-8.67
Net cash flows from financing activities	83.71	-31.79	-20.25	87.16
Exchange gains/(losses) on cash	-35.78	53.56	25.11	-314.14
Total increase(decrease) in cash flow	289.11	492.14	-287.33	1107.91

The total cash flows from 2011 to 2015 in this company are inflow except in the 2014. The cash flows from operating activities are inflows, but the growth rate is negative in 2012 and 2014. It fluctuates unstably. The net cash flows from investing activities are mostly negative except the year 2015. The outflow is becoming smaller from 2011 to 2013, in 2014 the outflow increase again, and it becomes positive in 2015. The out flow from 2011 to 2014 is attributed to the purchase of property, plant and equipment. The decrease trend in the cash outflow of internal investment means that the increase in fixed assets and intangible assets, and indicates that the enterprise is reducing the operating. In 2015 the cash used to purchase property is the highest of the five years, but the inflow of sale of subsidiaries is much bigger. That's why in this year the net cash flow is inflow. This situation reflects the company's policy of throwing useless assets. Net cash flows from financing activities are positive in 2011, 2012 and 2015 and negative in 2013 and 2014. The net cash flow decrease from 2011 to 2013, and then increase from 2013 to 2015. The inflows from financing activities can be allocated to the loan of bank and other financial institutions. The outflow in 2013 and 2014 is allocated to the repayment of loans. Lastly it's the exchange gain or losses, which is influenced by the exchange rate, it is hardly to control.

The following chart 3.4 is the vertical analysis of cash flow statement. The total cash flow is chosen as the benchmark as 100%. Equation (2.3) is used. The specific calculation results can be found in annex 8.

Chart 3.4 Vertical analysis of cash flow

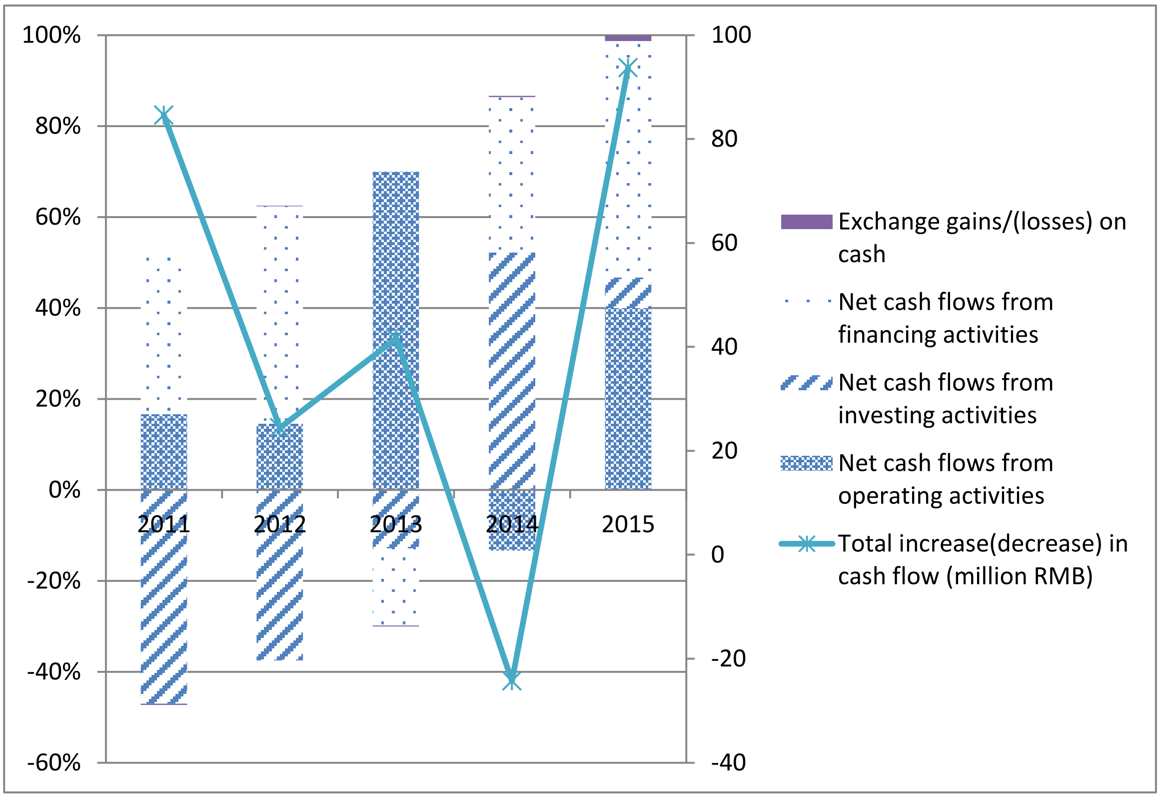


Table 3.1 and chart 3.4 shows the structure of cash flow. The net cash flow from operating activities takes a relatively small proportion, especially in 2011, 2012 and 2014. Only in 2013, it takes a larger proportion. Correspondingly, net cash flows from financing and investing activities take a larger proportion. And in 2011 and 2014, net cash flow from investing activities is larger to financing activities. In the other years, the net cash from financing activities take a larger proportion. Investing activities are to find investment sites for the idle funds. Financing activities are to raise funds for business activities. The cash flows of these two activities are ancillary activities that serve the main business. These two parts of the cash flow is too large, indicating that the financial situation is unstable.

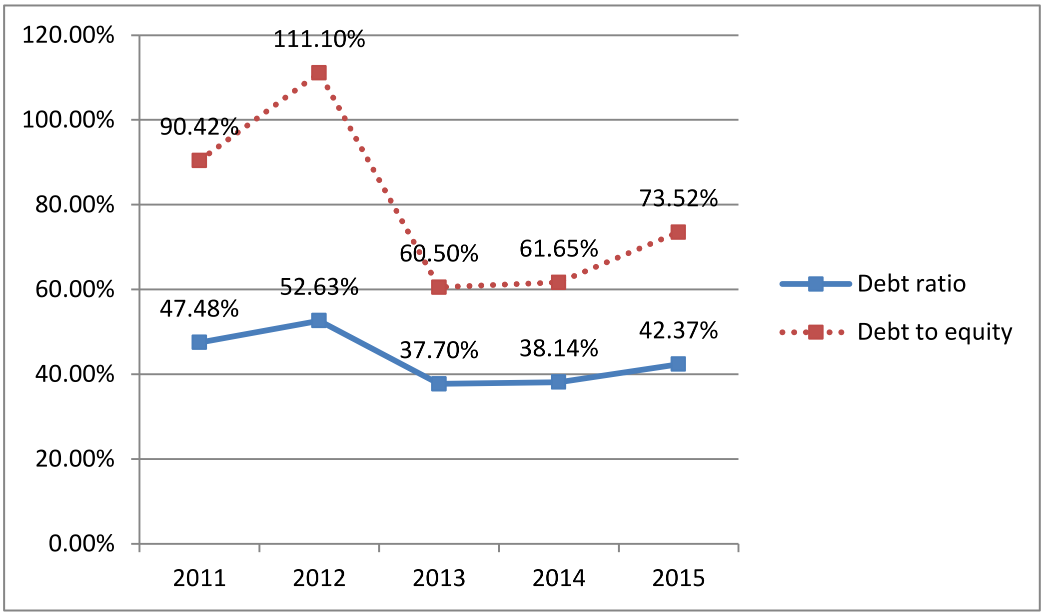
3.3 Financial Ratio Analysis of the company

In this chapter, we focus on the analysis the solvency, liquidity and operational capability of Huiyuan Juice. The financial ratio analysis is used. The specific ratios and their calculation are introduced in chapter 2.

3.3.1 Solvency Ratio Analysis

Debt ratio, debt to equity and interest coverage is chosen in this part. The results are shown in following charts. We analysis these ratios separately and draw a conclusion in total. Chart 3.5 shows the trend of debt ratio and debt to equity. Chart 3.6 shows the trend of interest of coverage.

Chart 3.5 Debt ratio and debt to equity of the company

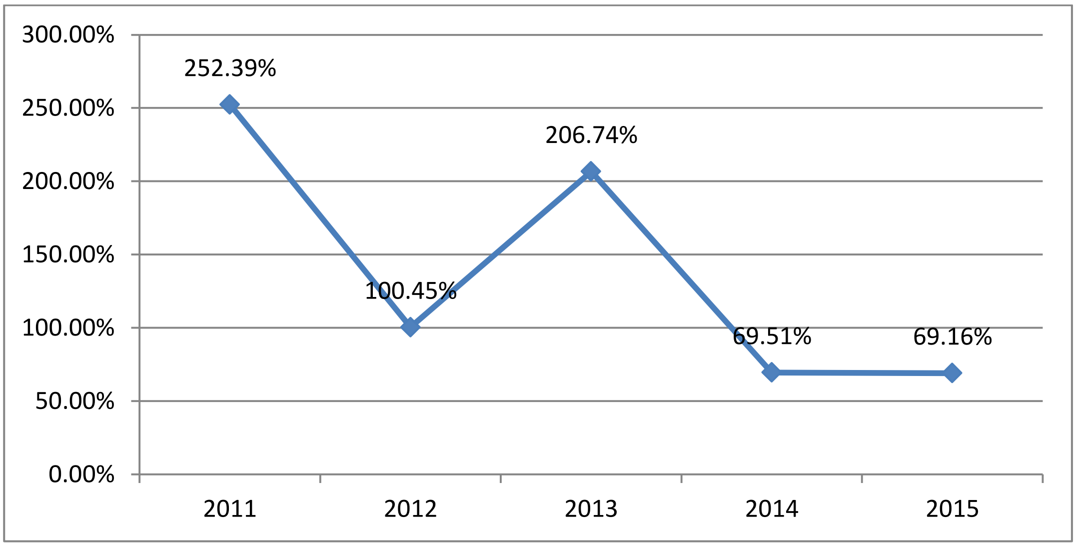


From chart 3.5, we can get a total moving trend of debt ratio and debt to equity. In general, the two lines move closely from 2011 to 2013. That's to say, the proportion of equity is reducing in these years. From 2013 to 2015, the space between the two lines is enlarging, which states that the proportion of equity is increasing.

The change in the debt ratio is relatively stable. It is around 40% in general. In 2012, the ratio is more than 50%, after a drop in 2013, and gradually increases. From the capital structure of the company, the proportion of debt is slightly less than equity. This debt ratio is relatively reasonable, so it is easier for the company to raise money. In general the company's debt ratio is an upward trend, which indicates the increased funds of the production and operation of enterprises. The company's ability to expand the sources of external funds is improved, and its own financial potential was further developed. However, at the same time, the cost of capital is increasing. Increased long-term liabilities, indicates the increased interest expenses, so the solvency risk increased.

In addition to 2012, the company's debt to equity ratio in the fiscal year is less than 1. After a lowest point in 2013 and then is followed by an upward trend. Currently the debt to equity is at 73%. The owned capital takes a bigger proportion of the total assets of the enterprise, and the equity has a relative higher guarantee extent of the creditor's rights. If we only look at this ratio, the company’s long-term solvency is strong and the enterprise should be easy to obtain bank loans. Capital operation is poor. It is a low-risk, low-paying financial structure.

Chart 3.6 Interest coverage of the company



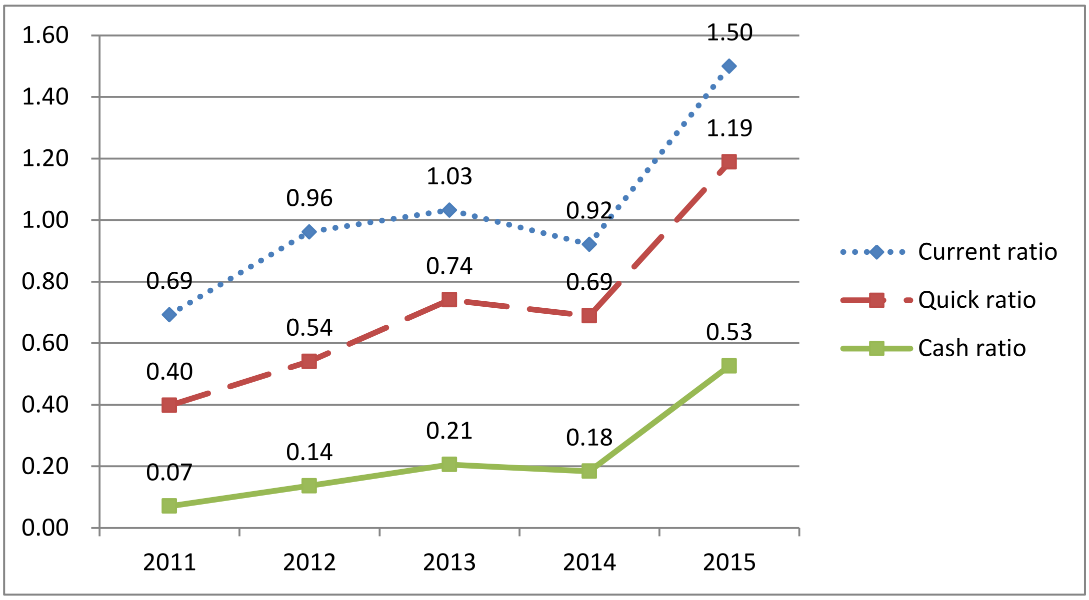
The interest coverage fluctuated significantly, only in 2011 and 2013 it reaches to 200%. It is about 100% in 2012, which is at the critical edge. In 2014 and 2015 they are less than 100%, indicating that the profit is not enough to pay the interest expense. It is noteworthy that the income from sold of subsidiaries takes a larger proportion of EBIT in 2013. That’s to say, in fact, from 2012, the guarantee level of Huiyuan’s profitability to repay the maturity of debt gradually decline. Huiyuan Juice's debt security declines, the risk increases.

Based on the analysis of the above three types of ratios, the debt risk of Huiyuan Juice is exacerbated, and only 2011 is secure. Although the proportion of debt financing is decreasing, the reason may be due to the weak ability to make it unable to bear the higher debt. In addition, Huiyuan expanded its debt financing ways, issuance of corporate bonds and financial leasing in 2015. We can find out that debt to equity increased by 10% in 2015, while the change of interest coverage and EBIT were minimal, suggesting that the use of new financing modalities in 2015 raised more funds for Huiyuan and reduced financing costs. But the situation is still very grim.

3.3.2 Liquidity Ratio Analysis

The result of current ratio, quick ratio and cash ratio of Huiyuan Juice are shown in chart 3.7. The liquidity analysis is based on them.

Chart 3.7 Current ratio, quick ratio and cash ratio of the company



From chart 3.7, we can see the current ratio is a rising process in general. It only falls down in 2014. The lowest point is in 2011. From 2012 to 2014, it is hovering around 1. It is close to 1.5 in 2015. The substantial increase of the current ratio is in 2012 and 2015. It is due to the increase in current assets. The rise in 2012 was mainly due to the increase in inventories and accounts receivable. And the rise of 2015 is allocated to the rise of cash and cash equivalent. In recent years, the current ratio of China beverage industry is around 1.3. Huiyuan juice is below the industry level before 2015, but reached this level in 2015. Some companies, despite the low current ratio, have a strong sales channel and a quick return on sales to generate sufficient cash flow to ensure that current liabilities are repaid on time. And the company's profitability is very strong, can quickly produce enough profits to ensure debt repayment. Huiyuan Group profitability is not ideal in recent years. So the increase of the current is necessary. It eases the debt pressure to a certain extent.

Quick ratio is also a rising trend, with an almost 20% annual rate of rise, only in 2014 it dropped to 0.69. The quick ratio of the drink industry is around 0.8. In recent years, Huiyuan Juice quick ratio is very close to the industry level. In 2015, it is more than 1. The drop in 2014 mainly was due to the increase in short-term liabilities, which reflected in the decrease of bank borrowings and accounts payable. The sharp rise in 2015 was due to an increase in cash and cash equivalents and marketable securities. Because of the removal of inventory and other assets that are difficult turned into cash, quick ratio is more accurate and reliable than the current ratio to make assessment of the liquidity of corporate assets and the ability to repay short-term debt. Huiyuan's liquidity is enhanced and short-term debt risk has being smaller.

The changing trend of cash ratio is the same as the current ratio and quick ratio. The cash ratio gradually increased from 0.07 in 2011 to 0.5 in 2015. There is a slight decrease in 2014, due to the decrease in cash and cash equivalent. The sharp rise in 2015 is due to the increase in cash and cash equivalent. The industry level is about 0.5. Cash assets are the balance of quick assets after deducting accounts receivable, which can best reflect the ability of enterprises to directly pay current liabilities. The increase in the cash ratio of Huiyuan strengthens the liquidity. But the profitability of cash assets is very low, the increase in cash ratio also means that corporate cash assets increased, the opportunity costs increased.

Based on the above analysis, Huiyuan Group's liquidity is enhanced; the current short-term debt risk is relative low.

3.3.3 Activity Ratio Analysis

In this part, we choose total assets turnover, inventory turnover, accounts receivable turnover and accounts payable turnover to assess the company's operating capacity. The results of these ratios are shown in Chart 3.8.

Chart 3.8 Total assets turnover, inventory turnover, accounts receivable turnover and accounts payable turnover of the company

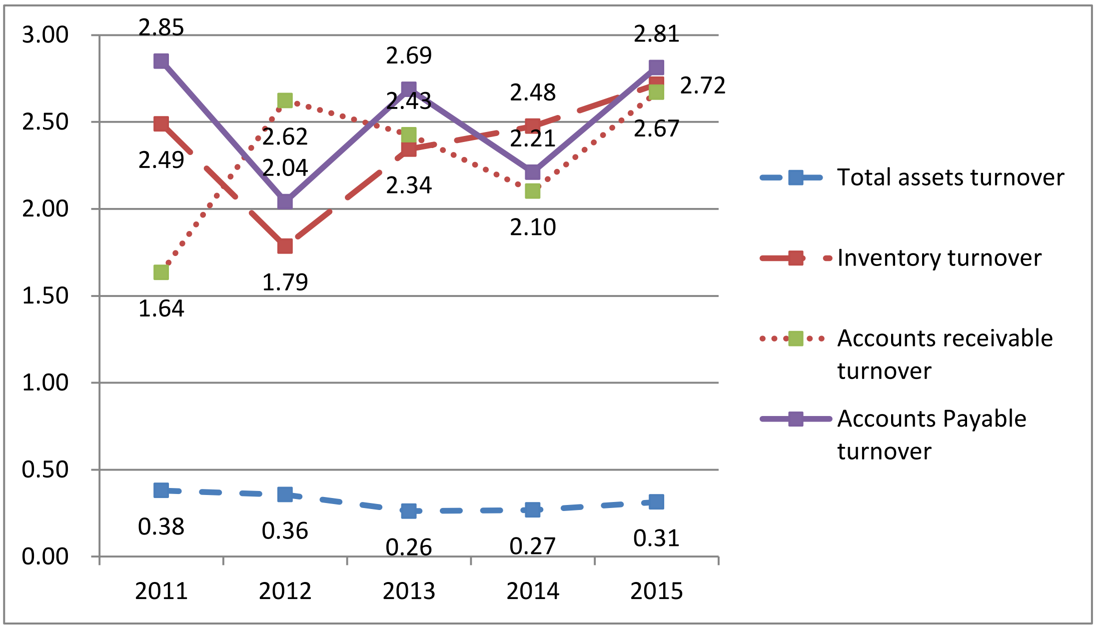


Chart 3.8 shows that total assets turnover decrease from 2011 to 2013, and recover in the subsequent years. The total asset turnover in 2013 is lowest, which was due to a significant increase in total assets. The company acquired a fruit juice and pulp producer in this year. Although in 2013, the revenue grew 600 million RMB compared to the previous year, the increase in assets caused by acquisition was greater than revenue. The industry average is at about 0.95. It is clear that Huiyuan Juice has a huge difference with the industry average. Huiyuan Group has low efficiency on the use of assets as well as low quality of operation. Company should take steps to improve asset utilization, such as disposal of excess, idle assets, improve sales revenue.

In generally, inventory turnover is increasing. It dropped from 2011 to 2012 and increased from 2012 to 2015. The drop of inventory turnover caused by increased inventory. And the increase in the later years is allocated to the increasing revenue and decreased packaging and sugar prices in recent years. The increasing tendency of inventory turnover indicates that reduced inventory level, enhanced liquidity, and accelerated speed of converting inventory into cash or receivables, which improve the ability to meet its debt. However, the inventory turnover of industry average is 5; Huiyuan Group is far below this level. Despite the upward trend in inventory turnover, there is problem in purchase of inventory, production and sales. There is a high level of capital occupation, sales inefficiency, inefficient of inventory utilization. By analyzing the inventory structure, we found that raw material is a large part stranded in the inventory.

Accounts receivable turnover is a downward trend in general. The average value is only 2.3 of the five years. It is incredible for a FMCG company; it varies widely to the industry level. It indicates that its funds have been occupied by the channel vendors for a long time. The problem of long payment period has not been resolved. The key issue is not in the product, is out of marketing management capabilities. Revenue is too low and accounts receivable are too high, that result to the low accounts receivable turnover. In the structure of accounts receivable, trade accounts receivable accounted for more than half. Accounts receivable play an important role in current assets. If the company's accounts receivable timely recovery, the company's capital efficiency can be greatly improved.

The accounts payable turnover fluctuates unstably between 2 and 3. It is higher in 2011, 2013 and 2015, lower in 2012 and 2014. It is relative low and below the industry average. The accounts payable of Huiyuan Group is not too high. The problem is the low revenue. So the ability of enterprises to freely use the fund of supply is weak.

In a sense, the operational capacity has an important influence on enterprise's solvency and profitability. Based on the above analysis, there is a big problem on Huiyuan Group’s management. The company should improve management, optimize the asset structure and improve the financial situation.

4. Profitability Assessment

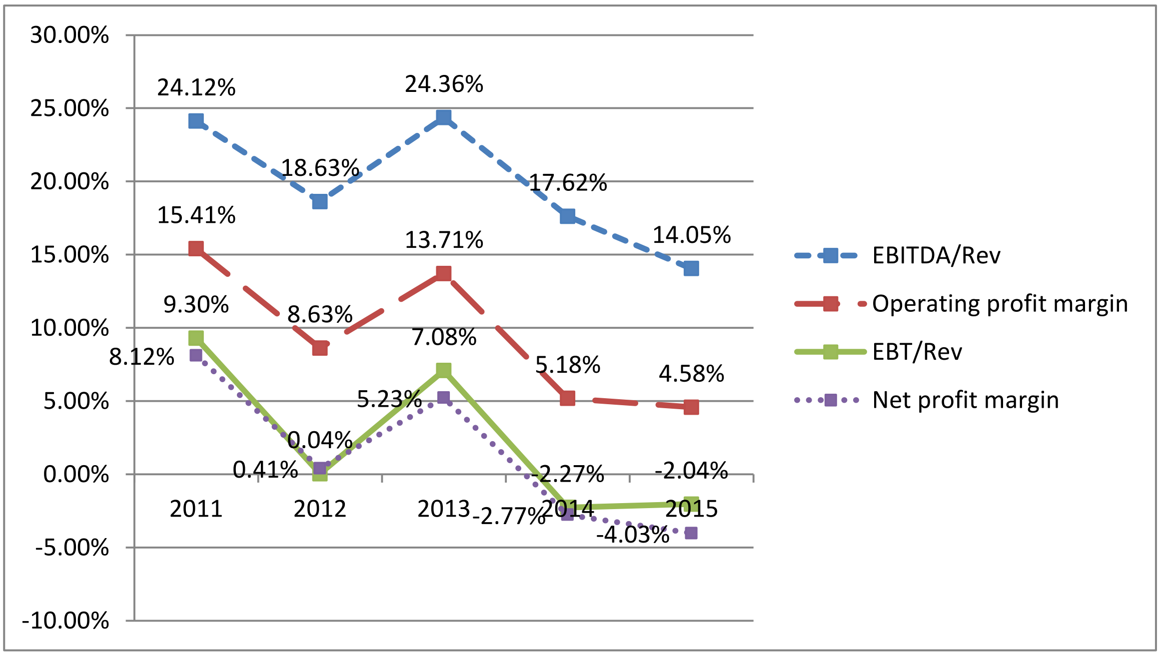
The most direct purpose that enterprises engaged in business activities is to maximize the profits to ensure the sustainable and stable operation and development. While the sustainable and stable development is the basis for profit. The two are closely related to each other. So the profitability assessment of a company is important and necessary.

In chapter 3, the overall financial situation of Huiyuan Group is analyzed. In this chapter, profitability assessment is the focus of the study. The specific research methods that are used are profitability ratio analysis and pyramidal decomposition analysis of ROE.

4.1 Profitability Ratio Analysis

In this part, operating profit margin, net profit margin, return on assets and return on equity are chosen as the research indicator. The results are in chart 4.1 and chart 4.2.

Chart 4.1 EBITDA/Rev, operating profit margin, EBT/Rev and Net profit margin of the company



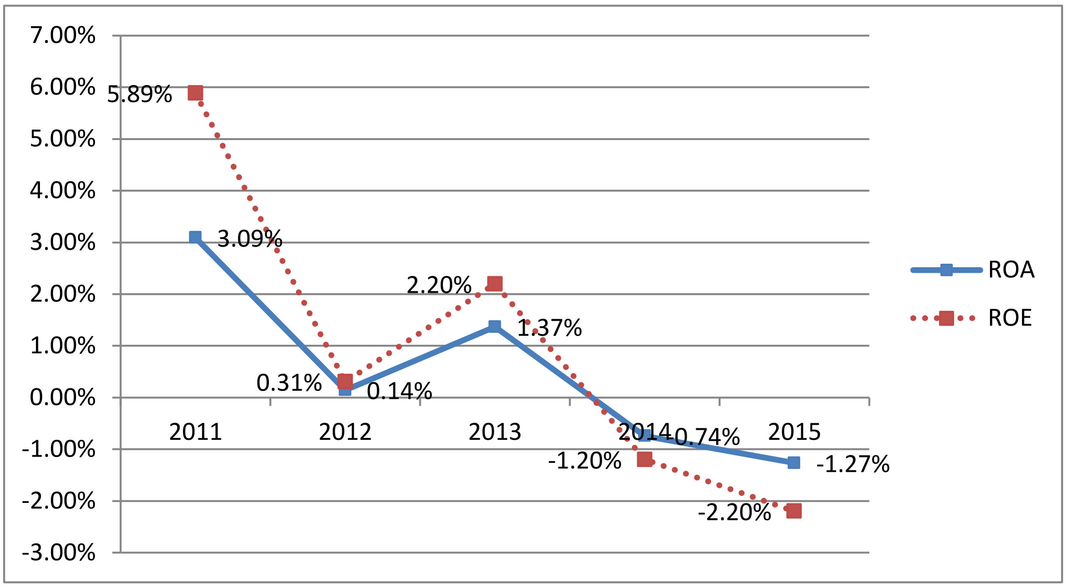
It is obvious that operating profit margin is a downward trend through chart 4.1. The highest value is in 2011 and the lowest value is in 2015. There is an increase in 2013; it is also the second highest point. In recent years, the beverage industry is in a recession. Uni-Present, Master Kong's operating profit margin is also only at 5%. The revenue is increasing year by year, so the decline is caused by decreased operating profit. Next, we analyze the reason of the change year by year. In 2012 total cost of sales, selling and marketing and administrative expenses only increased 1%, the decrease of operating profit caused by decreased financial income and decreased unrealized gain from change of fair value of convertible bonds. The increase in 2013 is allocated to the gain on disposal of subsidiaries. The reason of decrease in 2014 is allocated to the decreased financial income. And in 2015, it caused by the exchange loss and increasing operating costs. In short, the decline is caused by continued growth of costs and significant changes in non-operating income. The fundamental way to improve operating profit margin is to increase revenue, control costs, and reduce the impact of non-operating income changes.

EBITDA is a downward trend as well. The highest point is in 2013 and the lowest point is in 2015. The difference between EBITDA margin and EBIT margin keeps around 10% in the five years. Depreciation accounted for about 90% and amortization accounts for about 10%. The biggest difference between EBITDA margin and EBIT margin is in 2014. The big difference caused by the goodwill, which was generated from acquisition of one of the Group’s major supplier of puree and concentration business in 2013.

The change trend of EBT margin is nearly the same to operating profit margin. However in 2015, EBT margin is a little higher than 2014. That’s difference from net profit margin. The difference between EBT margin and operating profit margin is from 6% to 9%. We can find that the highest cost of capital taking for the revenue is in 2012, and the lowest is in 2015.

Except for 2013, net profit margin is decreasing year by year. The highest value is in 2011, and it is reaching to zero in 2012, until to 2015, it becomes negative. And the industry average in 2015 is about 4%. When Huiyuan Juice increase sales, at the same time, net profit is not increased but reduced. Since Huiyuan's operating margin is comparable to the industry level, then the reason why net profit margin is so low or even negative can allocated to heavy interest burden and taxes burden. Thanks to the income tax credit in 2012, the net profit is not less than zero. Thanks to the sold of subsidiaries in 2013, the company earned a profit.

Chart 4.2 ROA and ROE of the company



Cart 4.2 shows a downward trend of ROE and ROA. And we can find the absolute value of ROE is bigger than the absolute value of ROA. Except for 2013, return on assets is a continuous decreasing trend. It decreased from 2011 to 2012 and 2013 to 2015, and increased from 2012 to 2013. The industry average is 3% in 2015. The total assets of the firm are nearly rising every year. Compared to 2011, assets in 2015 increased by 80%. However, the net profit is reducing. The reduction of this indicator reflects the reduction of enterprise management level, the poor sales, inefficient asset operation, and low cost control.

Except for 2013, return on assets is a decreasing tendency. There is a big drop from 2011 to 2012, and then an increase in 2013, and followed by decrease in latter two years. The values are negative in 2014 and 2015. The industry average is about 6%. The gap is evident. The total equity was increased in the fiscal years, compared to 2011; it increased 98%. But the net profit was decreasing. So the ROE was decreasing below zero. The decreasing ROE shows the low level of return of shareholders' equity, the low efficiency use of the company's owned capital. And in the subsequent chapter there is a specific analysis of ROE.

Through the above indicators of analysis, Huiyuan Group's profitability is relatively poor. The impact of non-core business on net profit is large. Efficiency of capital utilization is low. There are some problems with the management of the company.

4.2 Pyramidal Decomposition Analysis

Pyramidal decomposition analysis is shown in this subchapter. It is divided into two sections. In the first section, there is an influence quantification analysis of ROE from 2011 to 2015 of Huiyuan Juice Group Limited. It analyzes the impact of each component indicator. In the second section, we give some suggestions to the company to improve ROE based on the pyramidal decomposition results of 2015.

4.2.1 Pyramidal Decomposition Analysis of ROE

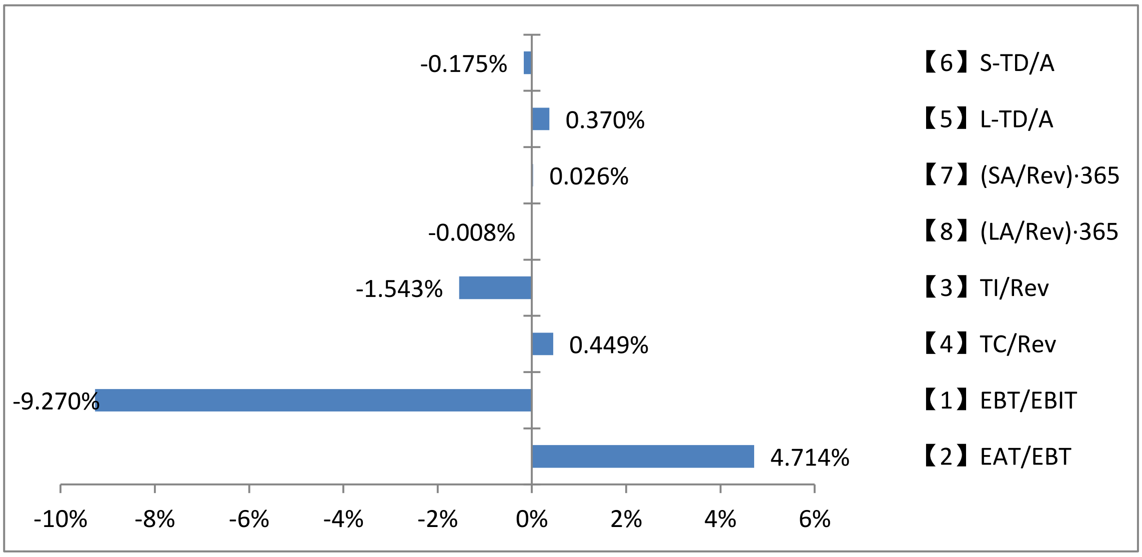
It establishes a comprehensive model of return on equity based on the internal relations between the various financial ratios. We measure the changes of nearly two years and find out factors that influence the ROE. It can help to make an assessment to Huiyuan's financial performance and find out the part that can be improved.

In chapter 2, we have already known the influence factors of ROE and computing method of influence quantification. Because of the special condition of Huiyuan Juice and the limitations of each influence quantification methods, not one method is applicable for the calculation of all the years. So we choose two methods applied in the analysis. Logarithmic function method is applied in calculation of 2011-2012, and integral method is applied in the other years. The indicators' value contained in pyramidal decomposition is shown in annex 9. The complete frame of pyramidal decomposition is show in annex 10. The absolute change of the indicators can be found in table 4.1. The influences of these items are shown in following charts, and the number in bracket is the rank of the influence. We do pyramidal decomposition analysis year by year based on the information from chart 4.1 to chart 4.4. In the end, there is a summary of influence of these years. We sum up all the influences on certain items from year 2012 to 2015 regardless of negative or positive influence, so that to get a total influence of each item. The result is shown in chart 4.5.

Table 4.1 Absolute change of the indicators

	2012/2011	2013/2012	2014/2013	2015/2014
ROE	-5.58%	1.89%	-3.39%	-0.997%
EAT/EBT	974.45%	-987.85%	47.83%	75.64%
EBT/EBIT	-59.93%	51.19%	-95.49%	-0.72%
TC/Rev	-2.78%	2.27%	0.88%	-6.43%
TI/Rev	-9.56%	7.36%	-7.65%	-7.04%
(LA/Rev)·365	-14	328	-35	-219
(SA/Rev)·365	79	-40	2	18
L-TD/A	9.78%	-7.18%	-3.58%	11.71%
S-TD/A	-4.64%	-7.76%	4.03%	-7.48%

Chart 4.3 Influence of component items of ROE from 2011 to 2012



ROE decreased -5.58% from 2011 to 2012. From chart 4.3, we can see five of these factors are negative and three of them are positive. The negative influence is more than the positive influence. The most influential factor is interest burden. 59.53% decrease of EBT/EBIT caused 9.27% decrease of ROE. Comparing to 2011, the company's interest expense increased 110 million, which decreased the company's profit, decreased ROE.

The second influential factor is tax burden. It is the most positive factor as well. 974.45%

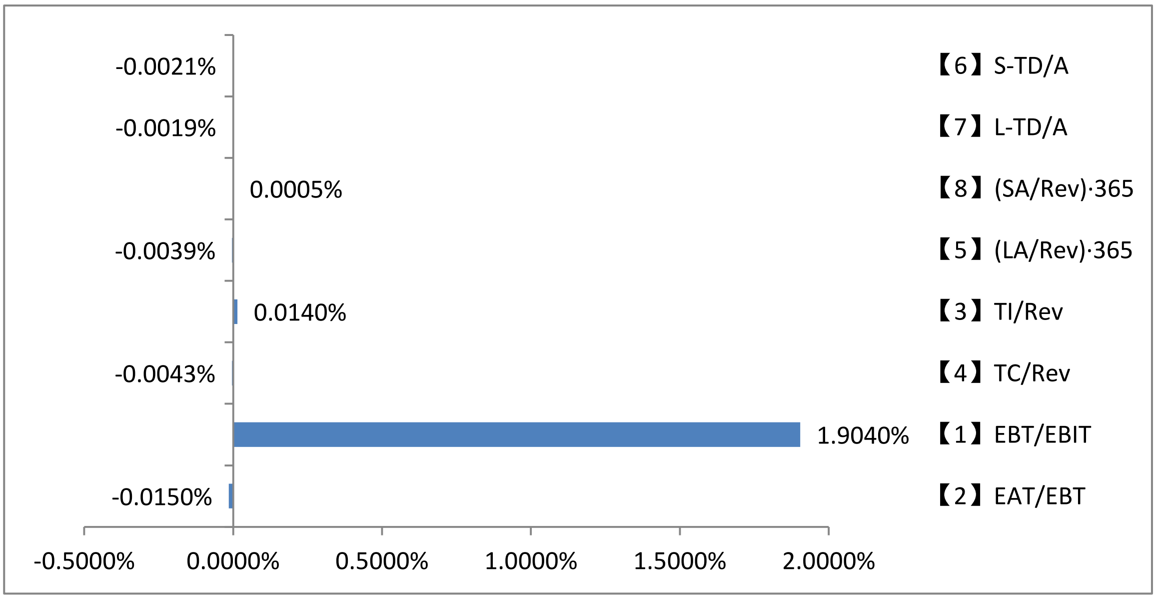
increase of EAT/EBT contributes to 4.71% increase of ROE. Some subsidiaries of Huiyuan Juice obtained operating loss in 2012 and it has been confirmed as deferred tax assets, which cause a negative income tax expense in 2012. The tax exemptions exceed the tax liabilities, which cause a positive influence.

The third influential factor is TI/Rev. It is the second negative factor as well. This ratio decreased 9.56% in 2012, which cause 1.54% decrease in ROE. Subdividing components of total non-operating income, we can find that decrease of unrealized gain from change of fair value of convertible bonds is the most important reason caused the decrease of ROE. Huiyuan Juice shares fell sharply in 2011, which reflects substantial gains in the income statement. In 2012, the share price is stable. So the gain on change of fair value was little. The decrease of finance income also has an important effect on the decrease of ROE.

The forth important component is TC/Rev. It is the second positive factor. The 2.78% decrease of this ratio causes 0.449% increase of ROE. It is mainly caused by the increase of revenue and less increase of operating expense. The increase of revenue is contributed to the increase of sale of 100% juice, and the increase of sales is caused by 3% decrease of average sale price.

LD/A is the fifth important factor; it is also the third positive factor. Specifically, the increase of borrowings contributed to increase of ROE. The sixth influential and third negative influence factor is SD/A. In details, we can find the decrease of short term borrowings is the most important item causing the negative influence in short term liabilities. However, the positive effect of LD/A exceeds the negative impact on ROE. In total the decrease of financial leverage has an increasing impact on ROE. The last negative influence factor is (SA/Rev)*365. The turnover period of current assets grow 79 days than last year. Specifically, the increase of inventory is the most important factor that caused the decrease of short term assets turnover rate.

Chart 4.4 Influence of component items of ROE from 2012 to 2013



ROE increased 1.89% in 2013 compared to 2012. In chart 4.4, we can find there are only three positive factors, and the rest are all negative factors. The sum of positive influence is greater than the negative influence. The most important ratio is interest burden. EBT/EBIT increased 55.19%, which contributed 1.904% to the increase of ROE. The interest expense reduced a lot compared to 2012. It is attributed to decreased interest expense on bank borrowings.

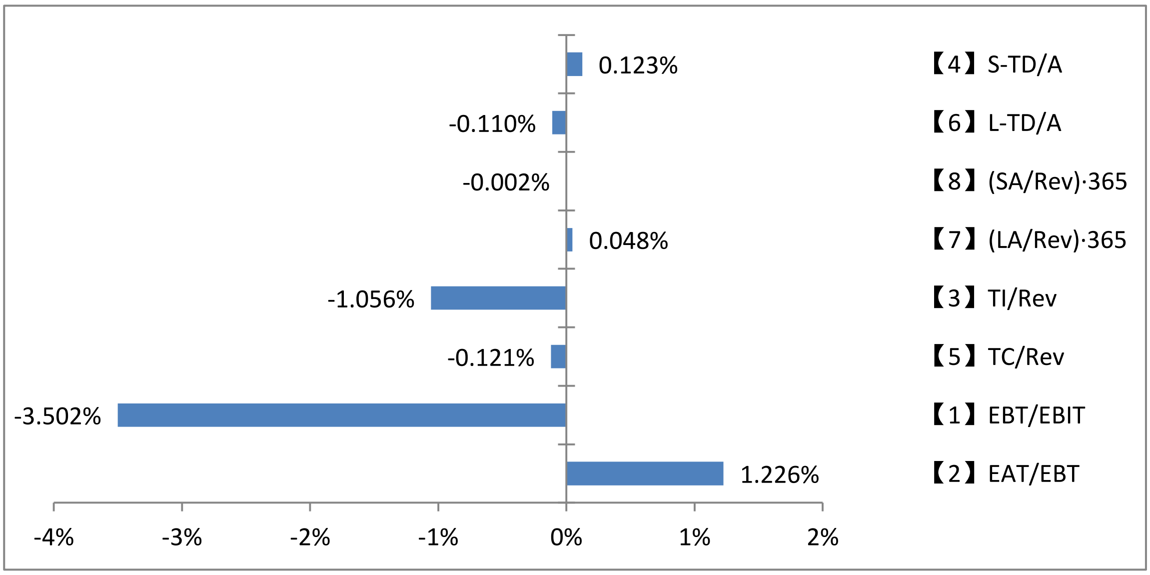
The second important factor is tax burden; it is also the most negative factor. The tax burden increased a lot in 2013. TI/Rev is the third important and second positive factor. Total income is the income from non-operating activities. Observe the composition of TI/Rev, the ratio of “Gain on disposal of subsidiaries/Rev” contributed most to the growth of ROE. This gain is come from the sale of factories in Chengdu and Shanghai.

The forth important and second negative factor is TC/Rev, which increases 2.27% compared to last year and causes -0.0043% decrease of ROE. In details, the ratio of “Advertising and other marketing expense/Rev” influence has a most negative influence to the change of ROE compared to the other costs. The advertising and marketing expense increased 300 million RMB in 2013.

(LA/Rev)·365 is fifth influential and third negative factor. The turnover period of long term assets increased 328 days in 2013. In details, it was caused by the decreased turnover rate of intangible assets. That was caused by a substantial increase of intangible assets in this year, which due to an acquisition activity. The company purchased a large raw material producer in this year, which is detailed introduced in horizontal common size analysis of balance sheet. (SA/Rev)·365 is the last positive factor. It just has little positive effect on increase of ROE. The turnover days of short term assets was reduced. Furtherly, it is allocated to the accelerated turnover rate of inventory.

The sixth and seventh influential factors are SD/A and LD/A. Both of them are negative factors. In details, the decline of conventicle bonds and accounts payable influence the decrease of ROE. The decreased financial leverage decreased the financial risk but also decreased the profit.

Chart 4.5 Influence of component items of ROE from 2013 to 2014



ROE decreases -3.393% in 2014. From chart 4.5, we can find there are only three positive factors, most are negative factors. The most important factor is interest burden. It is also the most negative factor. 95.5% decrease of this ratio in 2014 causes 3.5% decrease of ROE. The increased interest burden is caused by the increase of short term bank borrowings.

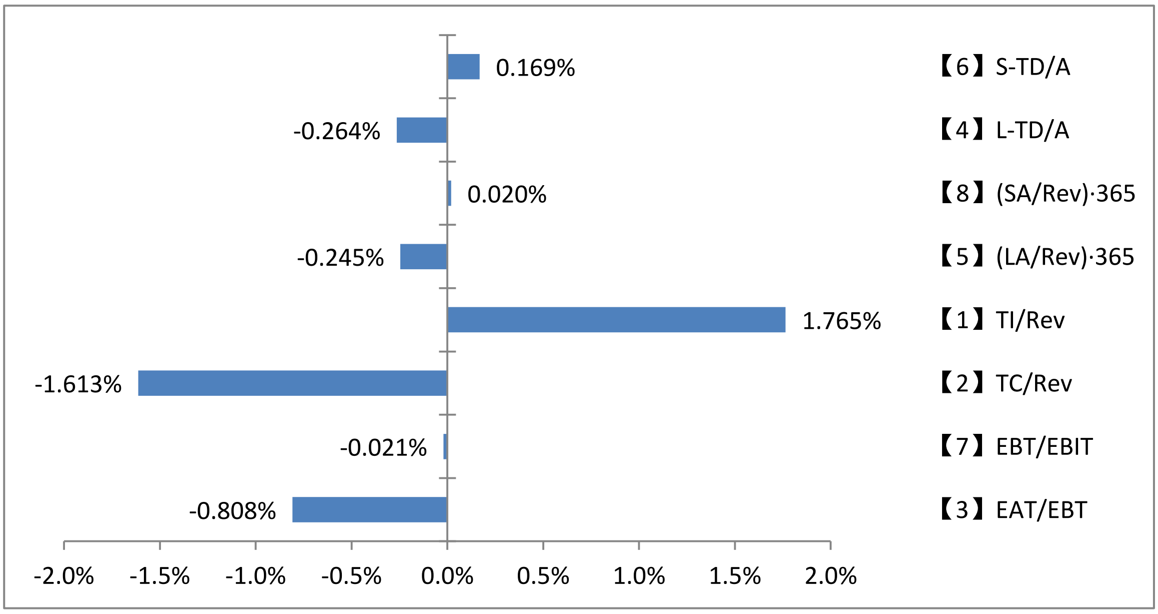
The second influential factor tax burden. It is the most positive factor. This ratio increased 48%, which contributed 1.23% rising of ROE. The tax burden is getting lighter than 2013.

The influence of TI/Rev ranks third. It is a negative factor. Total non-operating income in

2014 decreased 334 million compared to last year, which cause the decrease of TI/Rev and cause the negative impact. Further to see the specific impact factors, the influence of "Gain on disposal of subsidiaries/Rev" is -1.037% and "Government subsidy income/Rev" is -0.501%. So the decreasing gain on disposal of subsidiaries and income from government subsidy are the most negative factors.

The forth influential and second positive factor is SD/A. 4.03% increase of this ratio makes 0.123% increase of ROE. Increasing short term asset-liability ratio makes a positive effect to the company's profit. And the last positive factor is (LA/Rev)*365. It ranks seventh in total factors. The long term assets turnover period shortened 35 days compared to 2013, which contributes 0.048% increase of ROE. In details, this shorten was cause by the increasing turnover rate of property, plant and equipment. It is both caused by the increasing revenue and decreasing long-term assets. TC/Rev ranks fifth in all factors, and it is the third negative factor. The total operating costs increased in 2014. It is mainly caused by the administrative expenses.

Chart 4.6 Influence of component items of ROE from 2014 to 2015



Comparing to 2014, ROE decreased -0.997%. In chart 4.6, we can find TI/Rev is the most influential factor. Total non-operating income decreases 7.04% in 2015, which contributes to 1.77% increase of ROE. There is a huge decrease of total non-operating income compared to last year. Specifically, it can be allocated to the loss from change of fair value of convertible bonds. In 2014, Huiyuan's share fell sharply. So it shows gain in income statement. In 2015, Huiyuan's share price increased, which reflects loss in income statement. Another influence is the decrease of finance income. There is a huge loss resulted from the change of exchange rate. The Group's production relies on the import of certain raw materials and equipment. So the Group faced with various exchange risk, mainly in US dollars and euros.

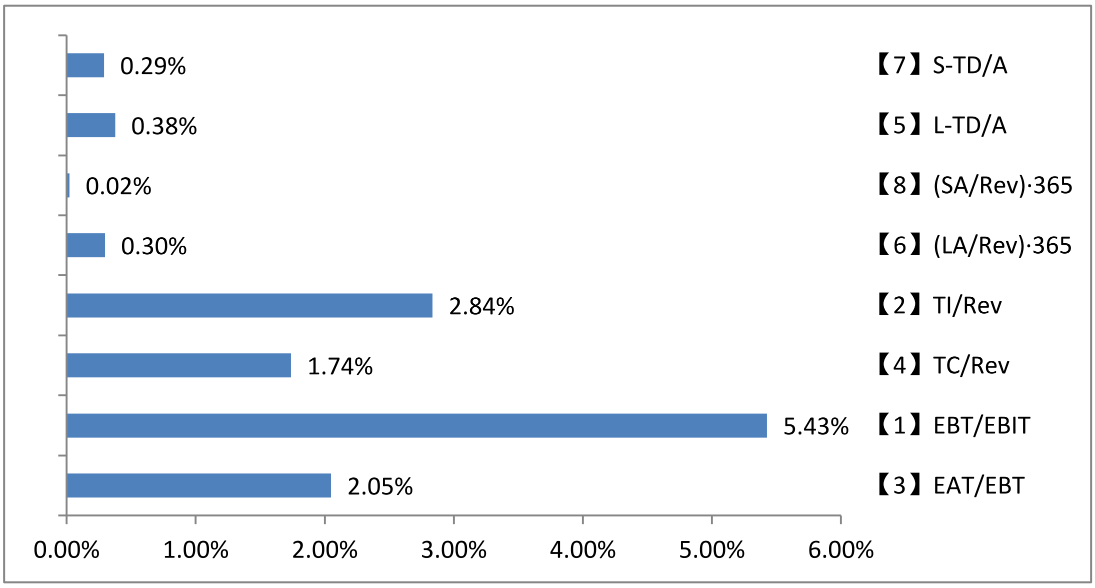
The second influential factor is TC/Rev. It is a positive factor. 6.43% decrease of the ratio results in 1.61% decrease of ROE. Trace its source; it is caused by the decreased advertising and marketing expense. Combine the influence of TC/Rev and TI/Rev, the decreased operating profit margin contribute to 0.152% increase of ROE. The company has been in a loss position. Return on sales is negative. So the decreased income helps to decrease loss.

The third influential factor is tax burden. Actually earnings before taxes and net profit are negative in the two years 75.64% increase of EBT/EAT means the increase of tax expense, which contributes to 0.8% decrease of ROE. Tax expense in 2015 is nearly 5 times to 2014.

The fourth influential factor is LD/A. It plays a negative impact. 7.48% decrease of this ratio results in 0.264% decrease of ROE. The influence of SD/A ratio ranks sixth. 7.48% decrease of it contributes 0.169% increase of ROE. The change is mainly caused by the decreased short term borrowings and decreased accounts payable. However, the negative effect of LD/A exceeds the positive effect of SD/A. So the financial leverage plays a negative role of the influence of ROE.

(LA/Rev)*365 is the fifth important factor. It plays a negative impact. The long term assets turnover period was reduced 219 days in 2015, which was mainly caused by the increased turnover rate of property, plant and equipment. And 219 days reduce of the indicator caused -0.245% decrease of ROE. The company was in a loss situation in the two years. So the increased operating activity enlarged its loss.

Chart 4.7 Summary of influence of ROE



From chart 4.7, we can see the most important item is interest burden. In the year in which the burden of interest increased, ROE always shows a downward trend. The company can adjust the financing instruments or expand new financing channels to get cheaper financing method so that to reduce the burden on interest. The second important item is TI/Rev. The total non-operating income has a big influence to the company. This is not a good sign. Operating income should be the main source of earnings. However, compared to operating income, non-operating income has a bigger impact to the company. The ROE performed well in the year 2013, which mainly because of adequate non-operating income. While trying to improve non-operating income, the company should focus on its operating activities, try to improve revenue and control operating costs. Tax burden is the third important item. And the forth important item is TC/Rev. The company should make effort to control its total operating costs, especially the administrative costs.

4.2.2 Suggestions for Improvement of ROE

ROE is negative in 2015. In this part, some measures are taken to improve ROE and make it become positive, so as to make suggestions to the coming years operating.

According to the structure pyramidal decomposition, there are five ways that can be used to improve the ROE. They are lower taxes, cheaper financial leverage, higher operating margin, higher assets turnover rate and higher financial leverage.

The lower taxes and higher assets turnover rate method are not used under the condition of keeping the same value of assets and revenue. Firstly, we focus on the financial leverage. If improving financial leverage, the interest burden will be heavier. The net profit itself is already negative. So the expand interest expense will expand the loss. Numerator of ROE is negative; the ROE will be always negative. It is nearly useless to improve financial leverage.

Then, we focus on cheaper financial leverage. Bank loan is the main source of debt, the amount is 2731271 RMB. The interest rate of bank loan is 8.4%. The net profit of this year is -228822 thousands RMB, that's to say, it need to reduce the interest expense at least 228822 thousands RMB, and 2725266 thousands RMB of bank loans. After these change, the ROE increased 1.206%. If only use this method to improve ROE, it nearly needs to reduce the entire bank loan.

Lastly, we try to improve the operating margin. Operating profit can be improved by cutting costs. Trace the source of total operating costs, Employee benefit expense/Rev is the most influential factor, it is almost twice as much as last year. So we keep this ratio as the same as last year. At the end, ROE improved 2.22% compared to last year and reached to 1.12%.

Based on above analysis, in the next year, the company can improve return on equity by cutting operating costs or get a cheaper financial leverage.

5. Conclusion

Based on above analysis, we can know a general financial situation of Huiyuan Juice Group Limited. The company has poor solvency and acceptable liquidity. Its assets management capability and profitability are very poor.

Focus on profitability situation of the company. In the five years, the company's operating incomes are all negative although gross profit is increasing year by year. Huiyuan Group has a big problem with controlling operating costs. Through the analysis we can find the change of non-operating income and interest burden are very sensitive to Huiyuan's net profit. The earnings are almost composed of non-operating income. Non-operating income is an unstable source of income. Only relying on non-operating income to support the profitability is not a long term solution. The company should make an effort on controlling costs and improve operating income.

We can analyze the reasons for the poor profitability of Huiyuan Group from both the external environment and the internal environment. Put our eyes on external environment. Beverage industry is in a situation of bottleneck presently. Consumer demand is declining. Huiyuan Group is only one of the companies with declining performance.

Huiyuan's main business is fruit juice. The company ranks first in pure juice and 26%–99% concentration juice market and it takes 59.2% and 41.9% market share separately. The company only takes 3.1% market shares in low concentration juice market. However, in China's beverage market, high concentration fruit juice only takes for 6% it. So Huiyuan Group doesn't take any advantage in the whole beverage market. Chinese people do not distinguish between pure juice and low concentration fruit juice clearly. Huiyuan's core products are not fully recognized by the mainstream market. So the company needs to cultivate consumers' habits of pure fruit juice products.

Beverage industry is a fiercely competitive industry, fastening customer loyalty is essential. Theoretically, substitutes for juice drinks should include all soft drinks except itself, such as pure water, tea drinks, and sports functional drinks. They all occupy the juice market share. If the price of the substitute is low, the upper limit of the juice price is suppressed, which weakens the profitability of the juice industry. Due to high requirements of production process, the price of pure fruit juice is relatively high. As the easy access to beverage industry, coupled with the lack of technological innovation capacity of enterprises, the homogenization of China's beverage products is obvious. Because of the small difference of products and price, there is a fierce competition in China’s beverage market. Under this situation, the customer’s choice plays a vital role. Lack of advertising, people's awareness of Huiyuan juice is limited to the glory of the past. And after the acquisition event of in 2008, Huiyuan Juice's customer loyalty is reduced. Huiyuan must pay attention to brand maintenance and promotion.

Put our eyes on the company's internal environment. Huiyuan Juice has big problems in management and marketing. Huiyuan diversifies its products in recent years, wants to change its position in the low concentration fruit juice market. It launched more than 10 kinds of new products in low concentration juice and non-fruit juice area. However, none of them survive in the market. Huiyuan performs poorly in marketing. Its expense on marketing is far away from its competitors. Failed attempts in low concentration fruit juice market also caused by its indecisive management. From the frequent new products can be seen that the company didn’t insist its policy. Changes in managers are frequent. Once a loss occurs, a new manager is replaced. Employer mechanism is chaotic, which results in frequent changes in product policy.

From the poor assets turnover, we can find Huiyuan Group has low efficiency of asset use. In recent years, beverage market demand grows slowly. The demand of high concentration fruit area in which Huiyuan is good at is lower. The company’s output exceeds the demand. Too much unprofitable asset is a burden. Especially after the acquisition of raw material supplier in 2013, the assets increased significantly, resulting in asset turnover decline. And it hasn’t return to the level in 2012 so far. Huiyuan Group seems to be aware of this problem. So in recent years, the company sold a lot of unprofitable assets. We can find the positive influence of this policy on the slight increase trend of total assets turnover from 2013 to 2015.

Although the company’s operating income is negative, we can find some good news on it of 2015. The loss on operating is reduced nearly 300 million compared to 2014. And the loss is also the smallest one in current five years. The gross profit continues to grow in the five years. In 2015, Huiyuan improved its distribution system. Business place increased to 1200 and dealers increased to 3000. Huiyuan cooperated with Sinopec-ejoy in 2015, its products stationed in 17400 ejoy stores. Also, Huiyuan purchased Suntory in 2015; they want to change the weakness position in the southern market with the help of Suntory strong southern market channels. These actions made a growth of revenue. In 2014, Huiyuan adjusted its strategy to focus on pure fruit juice market, solid leading position in high concentration fruit juice market. In 2015, NFC (not-from-concentrate) juice product “Fresh pancake” and the cold-chain juice “Fruit 100” were released. Consumer structure is in the process of escalation, healthy and natural product has a huge potential. Selling and marketing expense grow from 2011 to 2014, but it didn’t bring a big improvement to the revenue. And marketing expense in the marketing staff incentive spending was little. However, in 2015, marketing staff incentive spending rose sharply. It might be the reason of 1000 million RMB rise of revenue in 2015.

In short, Huiyuan Group Limited is still in a very difficult situation. Development is limited by the external environment. The reform is effective but the performance is less obvious. It needs more time to show results. The company likes a long distance runner. While waiting for changes in the market environment, the company should make an effort on controlling costs, marketing and optimizing management.

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List of Abbreviations

A: Assets

D: Debt

E: Equity

EAT: Earnings after taxes

EBIT: Earnings before interests and taxes

EBITDA: Earnings before interests, taxes, depreciation and amortization

EBT: Earnings before taxes

LA: Long-term assets

LD: Long-term debt

ROA: Return on assets

ROE: Return on equity

SA: Short-term assets

SD: Short-term debt

TC: Total operating costs

TI: Total non-operating income

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Ostrava dated 3. 5. 2017

Congrong Xu 徐丛荣

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Student's name and surname

List of Annexes

Annex 1: Balance sheet of Huiyuan Juice Group Limited from 2011 to 2015 (1000 thousand RMB)

	2011	2012	2013	2014	2015
ASSETS					
Non-current assets					
Land use rights	784,455	746,261	1,123,894	1,099,054	951,379
Property, plant and equipment	5,977,210	6,025,704	6,968,560	6,730,941	6,433,821
Intangible assets	457,780	438,433	4,227,889	4,200,920	4,162,215
Deferred income tax assets	70,132	90,927	91,173	142,700	134,861
Long-term prepayment	41,980	84,634	98,555	142,615	146,418
Investments accounted for using the equity method	9,900	13,745	6,413	10,515	22,352
Long-term receivable	3,437	91,483	1,288	1,128	1,038
Total non-current assets	**7,344,894**	**7,491,187**	**12,517,772**	**12,327,873**	**11,852,084**
Current assets					
Inventories	1,149,560	1,605,213	1,325,267	1,211,233	1,293,340
Trade and other receivables	1,166,446	1,426,155	1,855,075	2,182,987	2,127,135
Available-for-sale financial assets				265,423	555,504
Restricted cash and short-term bank deposits	108,902	115,769	577,785	452,882	624,407
Cash and cash equivalents	276,572	521,127	937,421	694,373	1,631,547
Total current assets	**2,701,480**	**3,668,264**	**4,695,548**	**4,806,898**	**6,231,933**
Total assets	**10,046,374**	**11,159,451**	**17,213,320**	**17,134,771**	**18,084,017**
EQUITY					
Share capital	115	115	147	180	181

Share premium	3,776,401	3,776,401	6,006,880	8,303,542	8,341,716
Convertible preference shares			2,831,338	541,474	541,474
Other reserves	252,284	248,410	275,306	297,814	341,314
Retained earnings	1,247,138	1,261,308	1,462,875	1,315,019	1,055,562
Non-controlling interests in equity			147,966	141,691	141,685
Total equity	**5,275,938**	**5,286,234**	**10,724,512**	**10,599,720**	**10,421,932**
LIABILITIES					
Non-current liabilities					
Borrowings:					
Bank borrowings	52,972	1,175,398	1,837,280	327,782	882,930
Corporate bond					1,417,377
Finance lease liabilities					202,687
Borrowings	52,972	1,175,398	1,837,280	327,782	2,502,994
Deferred government grants	91,899	103,927	92,969	62,202	32,493
Trade and other payables				57,140	55,135
Deferred income tax liabilities			9,609	9,247	8,885
Convertible bonds	725,328	779,148		860,382	906,996
Total non-current liabilities	**870,199**	**2,058,473**	**1,939,858**	**1,316,753**	**3,506,503**
Current liabilities					
Trade and other payables	1,342,555	1,949,800	1,675,734	2,020,112	1,965,050
Convertible bonds			837,576		219,536
Taxation payable	41,942	6,818	76,694	56,910	53,945
Deferred revenue	75,151	50,569	10,183	10,609	8,997
Borrowings:					
Bank borrowings	2,437,589	1,807,557	1,948,763	3,130,667	1,854,341
Finance lease liabilities					53,713
Other financial institution	3,000				

borrowings					
Borrowings	2,440,589	1,807,557	1,948,763	3,130,667	1,908,054
Total current liabilities	**3,900,237**	**3,814,744**	**4,548,950**	**5,218,298**	**4,155,582**
Total liabilities	**4,770,436**	**5,873,217**	**6,488,808**	**6,535,051**	**7,662,085**
Total equity and liabilities	**10,046,374**	**11,159,451**	**17,213,320**	**17,134,771**	**18,084,017**

Annex 2: The simplified balance sheet of Huiyuan Juice Group Limited (1000RMB)

	2011	2012	2013	2014	2015
Inventories	1,149,560	1,605,213	1,325,267	1,211,233	1,293,340
Accounts receivable	1,166,446	1,426,155	1,855,075	2,182,987	2,127,135
Cash and short term investment	385,474	636,896	1,515,206	1,412,678	2,811,458
Current assents	2,701,480	3,668,264	4,695,548	4,806,898	6,231,933
Land use rights	784,455	746,261	1,123,894	1,099,054	951,379
Property, plant and equipment	5,977,210	6,025,704	6,968,560	6,730,941	6,433,821
Intangible assets	457,780	438,433	4,227,889	4,200,920	4,162,215
Other long-term assets	125,449	280,789	197,429	296,958	304,669
Long-term assets	7,344,894	7,491,187	12,517,772	12,327,873	11,852,084
Total assets	**10,046,374**	**11,159,451**	**17,213,320**	**17,134,771**	**18,084,017**
Accounts payable	1,342,555	1,949,800	1,675,734	2,020,112	1,965,050
Current borrowings	2,440,589	1,807,557	1,948,763	3,130,667	1,908,054
Other short-term liabilities	117,093	57,387	924,453	67,519	282,478
current liabilities	3,900,237	3,814,744	4,548,950	5,218,298	4,155,582
Long-term borrowings	52,972	1,175,398	1,837,280	327,782	2,502,994
Convertible bonds	725,328	779,148	0	860,382	906,996
Other long-term liabilities	91,899	103,927	102,578	128,589	96,513
non-current liabilities	870,199	2,058,473	1,939,858	1,316,753	3,506,503
Total Liabilities	**4,770,436**	**5,873,217**	**6,488,808**	**6,535,051**	**7,662,085**
Equity	**5,275,938**	**5,286,234**	**10,724,512**	**10,599,720**	**10,421,932**
Liabilities & equity	**10,046,374**	**11,159,451**	**17,213,320**	**17,134,771**	**18,084,017**

Annex 3: Vertical analysis of balance sheet (%)

Components	2011	2012	2013	2014	2015
Inventories	11.44	14.38	7.70	7.07	7.15
Account receivable	11.61	12.78	10.78	12.74	11.76
Cash and short term investment	3.84	5.71	8.80	8.24	15.55
Current assents	26.89	32.87	27.28	28.05	34.46
Land use rights	7.81	6.69	6.53	6.41	5.26
Property, plant and equipment	59.50	54.00	40.48	39.28	35.58
Intangible assets	4.56	3.93	24.56	24.52	23.02
Other long-term assets	1.25	2.52	1.15	1.73	1.68
Long-term assets	73.11	67.13	72.72	71.95	65.54
Total assets	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**
Accounts payable	13.36	17.47	9.74	11.79	10.87
Current borrowings	24.29	16.20	11.32	18.27	10.55
Other short-term liabilities	1.17	0.51	5.37	0.39	1.56
current liabilities	38.82	34.18	26.43	30.45	22.98
Long-term borrowings	0.53	10.53	10.67	1.91	13.84
Convertible bonds	7.22	6.98	0.00	5.02	5.02
Other long-term liabilities	0.91	0.93	0.60	0.75	0.53
non-current liabilities	8.66	18.45	11.27	7.68	19.39
Total Liabilities	**47.48**	**52.63**	**37.70**	**38.14**	**42.37**
Equity	**52.52**	**47.37**	**62.30**	**61.86**	**57.63**
Liabilities & equity	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Annex 4: Income statement of Huiyuan Juice Group Limited from 2011 to 2015 (1000 RMB)

	2011	2012	2013	2014	2015
Revenue	3,825,596	3,980,766	4,503,885	4,592,050	5,682,296
Cost of materials	2,294,891	2,174,710	2,298,817	2,060,456	2,508,647
Cost of others	566,394	690,898	806,736	937,514	1,004,307
Cost of sales	2,861,285	2,865,608	3,105,553	2,997,970	3,512,954
Gross profit	964,311	1,115,158	1,398,332	1,594,080	2,169,342
Advertising and other marketing expenses	509,670	537,606	830,435	823,317	704,759
Other selling and marketing expenses	424,201	442,955	418,451	572,377	1,107,577
Selling and marketing expenses	933,871	980,561	1,248,886	1,395,694	1,812,336
Amortization of intangible assets	37,128	35,554	38,848	52,210	48,646
Impairment loss of inventories	26,233	29,734	42,327	5,463	4,851
Impairment loss for trade and other receivables	11,480	7,158	74,410	24,502	8,825
Auditors' remuneration	4,418	4,639	5,639	4,980	4,780
(Reversal)/provision of impairment loss of long term prepayment	0	0	0	52,969	-16,999
Other administrative expenses	195,085	200,667	252,650	368,151	324,973
Administrative expenses	274,344	277,752	413,874	508,275	375,076
Total cost of sales, selling and marketing and administrative expenses	4,069,500	4,123,921	4,768,313	4,901,939	5,700,366
Other income(expense)					
Government subsidy income	200,532	250,817	224,785	62,633	115,205
Income from sales of materials and scrap	46,229	10,511	12,884	13,234	53,285

Amortization of deferred government grants	3,389	3,963	31,401	30,767	29,709
Investment income on available -for-sale financial assets					4,785
Gain on disposals of property, plant and equipment and land use rights	248	2039	61995	1,446	-1,244
Others	6,062	13,032	6,407	-2,978	13,782
Gain on disposal of subsidiaries		70,430	425,928	151,004	302,699
Total Other income	256,460	350,792	763,400	256,106	518,221
Finance income(expense)					
Interest income from bank deposits	6,192	12,630	7,572	28,495	19,625
Exchange profit(loss)	106,762	2,123	55,130	-11,790	-239,978
Interest expenses and exchange loss capitalized	123,428	111,272	68,016	35,529	65,816
Total finance income	236,382	126,025	130,718	52,234	-154,537
Unrealized gain(loss) from change of fair value of Convertible Bonds	340,603	10,742	-4,851	308,644	-92,340
（Loss） on early redemption of convertible bonds				-65,776	
Share of profit(loss) of investments accounted for using the equity method	-100	-1,055	-7,332	-3,343	6,837
Total income	833,345	486,504	881,935	547,865	278,181
EBIT	589,441	343,349	617,507	237,976	260,111

Interest expenses:					
— Bank borrowings	134,001	237,989	187,413	216,468	229,830
— Convertible bonds	94,331	103,838	111,273	125,893	125,222
— Finance lease liabilities					8,224
— Corporate bond					12,802
— Financing cost of repaying long-term payables	5,216				
Total interest expenses	233,548	341,827	298,686	342,361	376,078
EBT	355,893	1,522	318,821	-104,385	-115,967
Income tax expense(credit)	45,398	-14,637	83,392	22,623	112,855
Net profit	310,495	16,159	235,429	-127,008	-228,822

Annex 5: The simplified income statement of Huiyuan Juice Group Limited from 2011 to 2015 (1000 RMB)

	2011	2012	2013	2014	2015
Revenue	3,825,596	3,980,766	4,503,885	4,592,050	5,682,296
Cost of goods sold	2,861,285	2,865,608	3,105,553	2,997,970	3,512,954
Gross profit	**964,311**	**1,115,158**	**1,398,332**	**1,594,080**	**2,169,342**
Operating expense	1,208,215	1,258,313	1,662,760	1,903,969	2,187,412
Operating income	**-243,904**	**-143,155**	**-264,428**	**-309,889**	**-18,070**
Non-operating income	833,345	486,504	881,935	547,865	278,181
EBIT	**589,441**	**343,349**	**617,507**	**237,976**	**260,111**
Interest paid	233,548	341,827	298,686	342,361	376,078
EBT	**355,893**	**1,522**	**318,821**	**-104,385**	**-115,967**
Income tax expense(credit)	45,398	-14,637	83,392	22,623	112,855
Net profit	**310,495**	**16,159**	**235,429**	**-127,008**	**-228,822**

Annex 6: Vertical analysis of income statement (%)

	2011	2012	2013	2014	2015
Cost of goods sold	74.79	71.99	68.95	65.29	61.82
Operating expense	31.58	31.61	36.92	41.46	38.50
Non-operating income	-21.78	-12.22	-19.58	-11.93	-4.90
Interest paid	6.10	8.59	6.63	7.46	6.62
Income tax expense(credit)	1.19	-0.37	1.85	0.49	1.99
Net profit	8.12	0.41	5.23	-2.77	-4.03
Revenue	100.00	100.00	100.00	100.00	100.00

Annex 7: Cash flow statement of Huiyuan Juice Group Limited from 2011 to 2015 (1000 RMB)

	2011	2012	2013	2014	2015
Net cash flows from operating activities	258,592	141,941	729,872	44,252	374,536
Net cash flows from investing activities	-728,897	-366,605	-133,809	-173,167	63,206
Net cash flows from financing activities	558,832	467,810	-177,660	-113,144	487,061
Exchange gains/(losses) on cash	-3,938	1,409	-2,109	-989	12,371
Total increase(decrease) in cash flow	84,589	244,555	416,294	-243,048	937,174

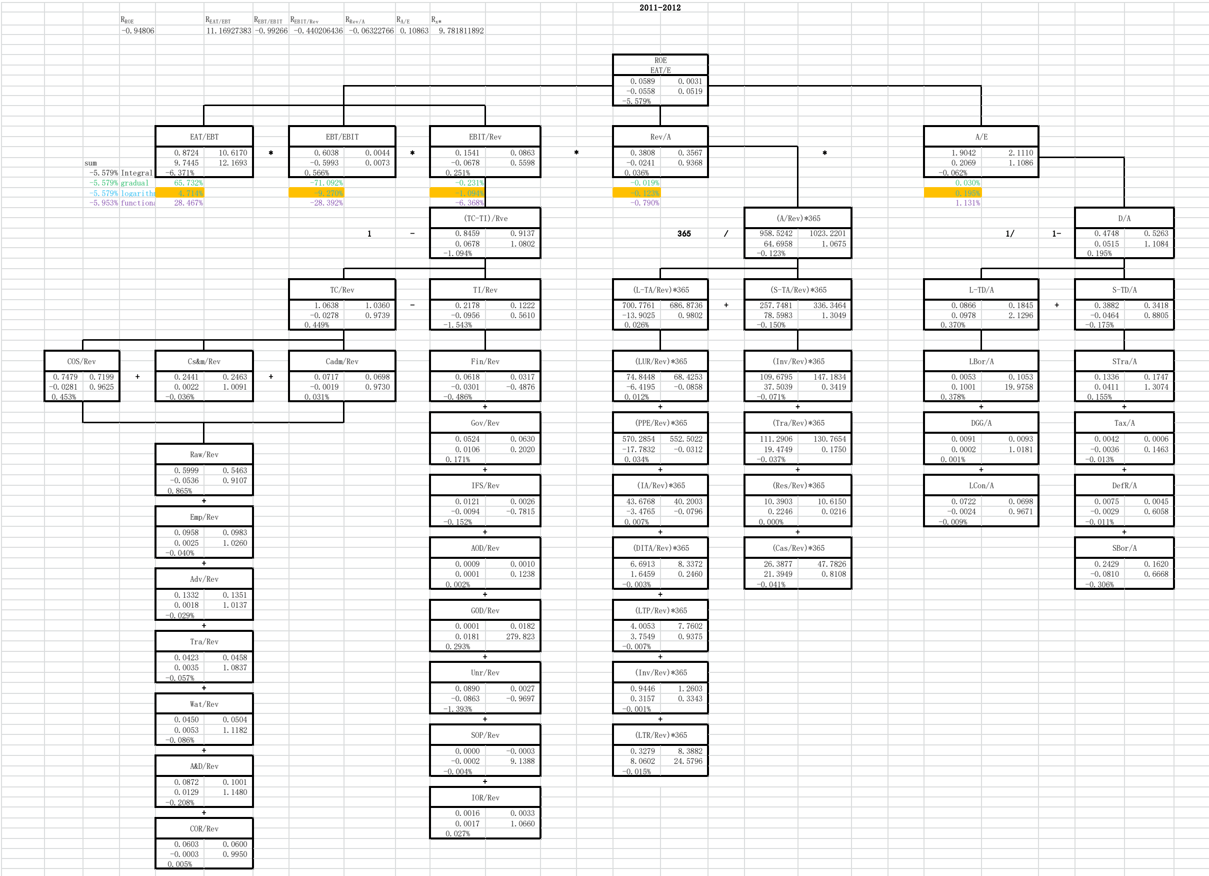
Annex 8: Vertical analysis of cash flow statement

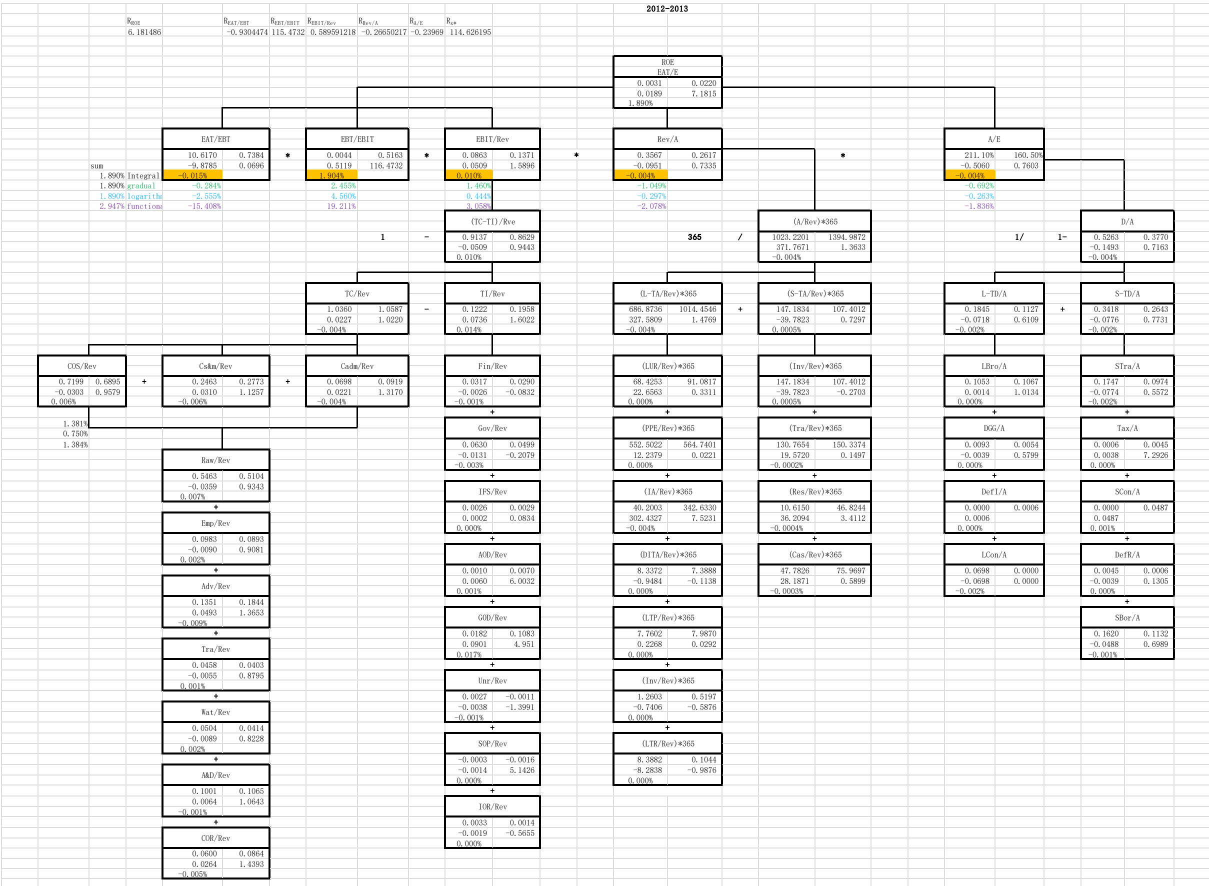
	2011	2012	2013	2014	2015
Net cash flows from operating activities	305.70%	58.04%	175.33%	-18.21%	39.96%
Net cash flows from investing activities	-861.69%	-149.91%	-32.14%	71.25%	6.74%
Net cash flows from financing activities	660.64%	191.29%	-42.68%	46.55%	51.97%
Exchange gains/(losses) on cash	-4.66%	0.58%	-0.51%	0.41%	1.32%
Total increase(decrease) in cash flow	100.00%	100.00%	100.00%	100.00%	100.00%

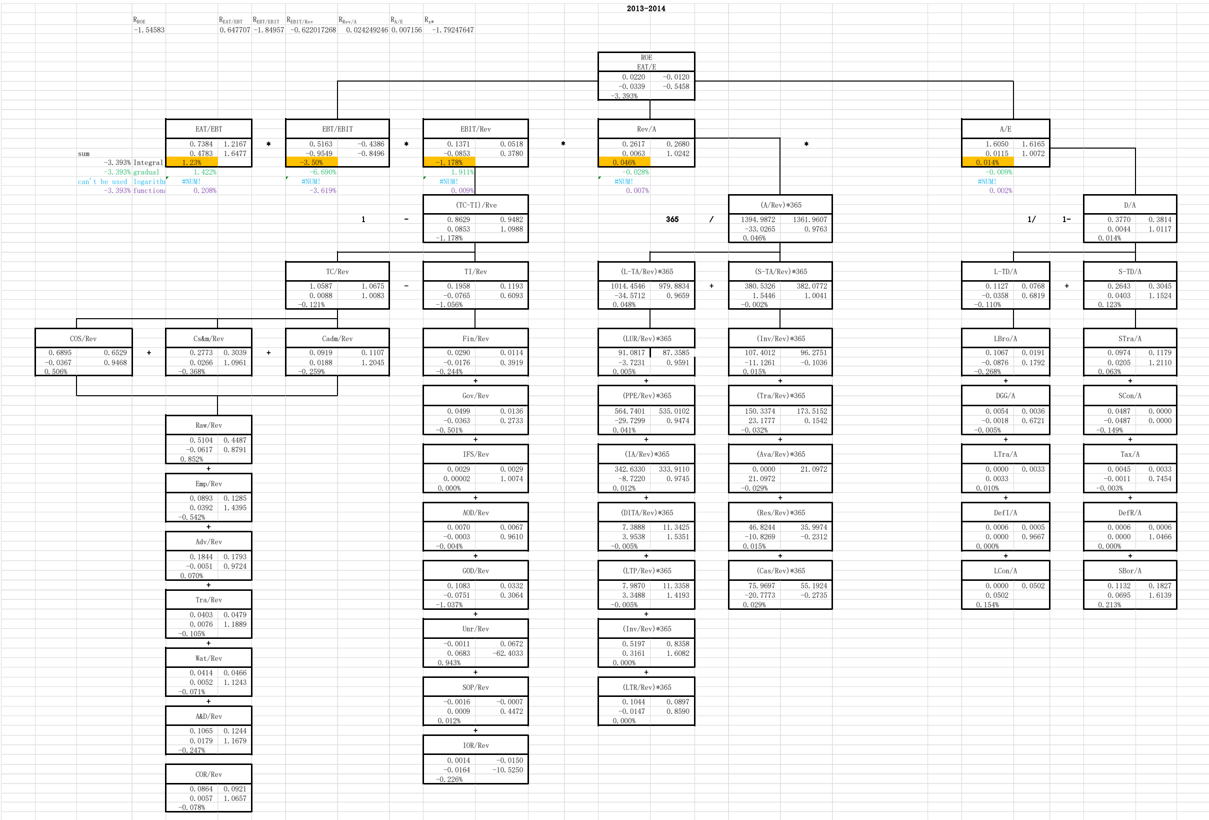
Annex 9: Indicators of pyramidal decomposition

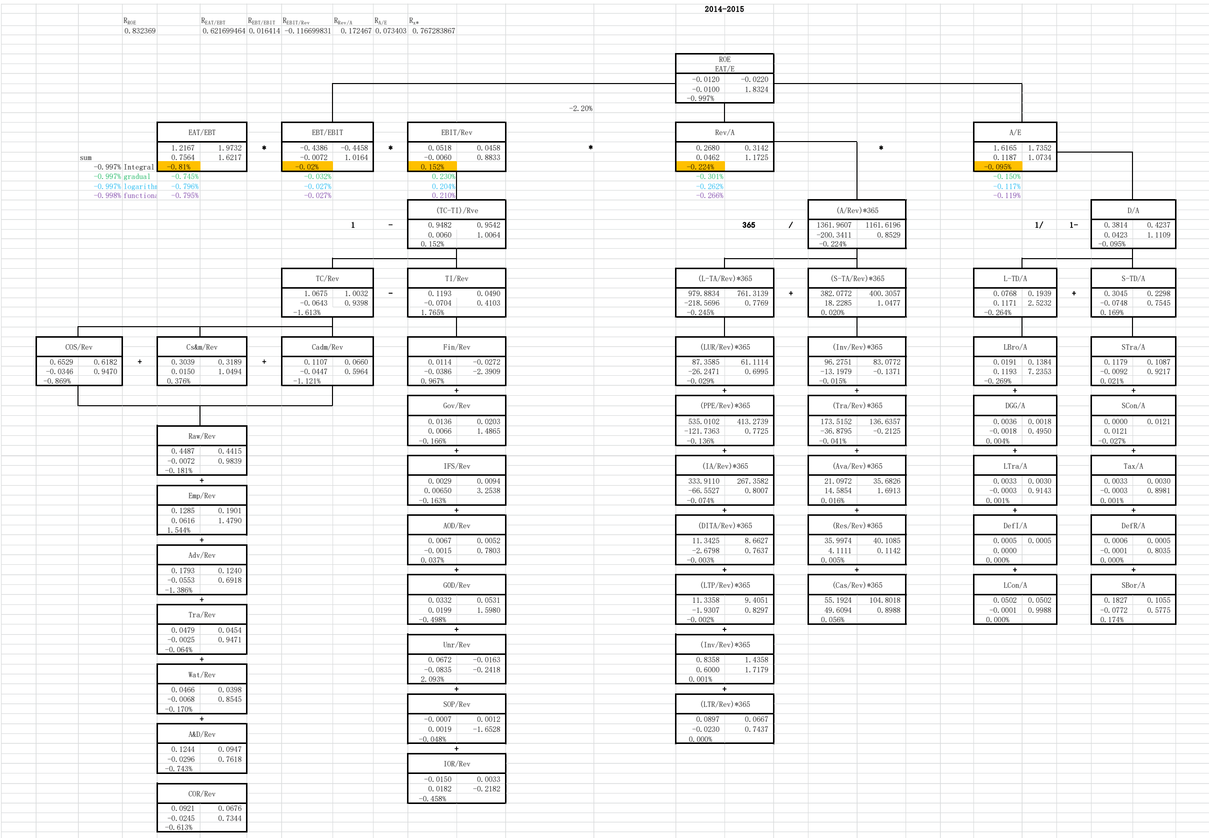
	2011	2012	2013	2014	2015
ROE	5.89%	0.31%	2.20%	-1.20%	-2.20%
EAT/EBT	87.24%	1061.70%	73.84%	121.67%	197.32%
EBT/EBIT	60.38%	0.44%	51.63%	-43.86%	-44.58%
TC/Rev	106.38%	103.60%	105.87%	106.75%	100.32%
TI/Rev	21.78%	12.22%	19.58%	11.93%	4.90%
(L-TA/Rev)*365	701	687	1014	980	761
(S-TA/Rev)*365	258	336	381	382	400
L-TD/A	8.66%	18.45%	11.27%	7.68%	19.39%
S-TD/A	38.82%	34.18%	26.43%	30.45%	22.98%

Annex 10: Pyramidal decomposition of ROE






2013-2014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